



# West 31<sup>st</sup> Street Corridor

Planning Sustainable Places



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# Acknowledgments

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*Map Data Sources: MARC, KCMO, Unified Government, Johnson County, & USGS*

*This plan made possible by a grant administered through Mid America Regional Council.*



# Existing Plans and Studies

In general, the list of previous plans is extensive. Often numbering 150 pages or more, many of these plans propose sweeping policy and development concepts for the entire city. Most of the plans have seen very little actual implementation, despite years of consistent recommendations.

## Transportation

I-35 and its connections, along with Southwest Boulevard, are recurring items for planning proposals in all the various plans. It’s well-acknowledged that I-35 creates a barrier both within the neighborhood and connecting to other neighborhoods. A variety of proposals exist for rethinking the interchanges, though none have been implemented.

Southwest Boulevard also has received countless recommendations for improvements. A portion of the streetscape plan was implemented many years ago, and a bike lane was striped in recent years, but those half-measures have not created a safe, useable, or enjoyable environment. That said, the Boulevard is identified in numerous plans as a high-priority bicycle facility, and a critical connection to the regional trail and bicycle network.

## Complete Streets Ordinance of Kansas City

### Goals

- develop a safe, efficient & effective multimodal transportation system
- prioritize low- and moderate-income neighborhoods
- Accommodate:
  - **pedestrians**
  - **wheelchair users**
  - **bicyclists**
  - **public transportation users**
- Provide modern amenities:
  - **green infrastructure**
  - **innovative storm-water management**
  - **street trees**
  - **appropriate lighting**

## Cambridge Connector Feasibility Study (2019)

### Goals

- Alleviate of peak traffic congestion of I-35 exit ramp onto 7<sup>th</sup> Street/Rainbow Boulevard
- Create usable I-35 connection to Southwest Boulevard at Cambridge Drive
- Minimize queue interactions between proposed intersections

## Bike KC Master Plan (2019)

### Goals:

- Create a useful, direct, connected, and safe network that appeals to bicyclists of all ages and abilities
- Proposed 658 linear miles of roadway: major separation (59%), minor separation (24%), and shared streets (17%).
- Recommendations:
  - **Connect “Major Separation” Southwest Boulevard with Avenida Cesar E Chavez/ 23rd Street Trafficway**
  - **Shared street proposed on Summit Avenue, as well as Roanoke Road between Southwest Boulevard and 39th Street**
  - **Major Separation streets proposed for Linwood Boulevard, Broadway Boulevard, and Avenida Cesar E Chavez/ 23rd Street Trafficway**



# Existing Plans and Studies

## Development and Land Use

A variety of plans call for similar changes to city zoning and development policy in the area. Most follow the lead of the 1995 Westside plan that aims to more clearly delineate small-scale residential areas from the industrial and mixed-use corridors around the edges.

In a few cases, it was noted that historic neighborhoods such as this also had neighborhood commercial enterprises mixed within the residential areas, too. Population has notably declined in the area for many decades, to the extent it’s now only about 15% of the total at its height.

The population loss is of major concern, since local businesses cannot survive with such a small amount of people in the neighborhood. Without a strong base, businesses must pull from a very large capture area, which inevitably leads to a demand for more parking.

## Public Space

Nearly every plan called for more public space and better-connected public space. In particular, the residents of the area south of I-35 noted that they don’t feel safe going to Penn Valley Park, and wish for a public space in their own neighborhood.

Several proposals looked at the low-lying land near 31st Street and Southwest Boulevard and suggested using some portion of that as public space. That desire is also coupled with the issue of storm water drainage, which has been an ongoing issue for decades.

## Westside Area Plan

(1995-1997)

Goals:

- harmonious land uses
- quality affordable housing
- neighborhood gateways
- access to public transportation
- appropriate service provision

Barriers:

- lack of general infrastructure maintenance
- absentee landlords
- poor property upkeep
- lack of code enforcement
- “Street people” and loitering

## Midtown/Plaza Area Plan

(2016)

Goals:

- provide integrated modes of transportation
- encourage strong neighborhood identities
- strengthen an urban development pattern with appropriate density and infrastructure
- support and invest in the existing commercial nodes while fostering an environment that attracts and retains quality businesses
- preserve, enhance, and invest in the area’s regional destinations

Key Recommendations:

- Improve overall Transportation Connectivity
- Provide an environment where people want to walk
- Provide safe, convenient routes for bicyclists
- Make sure all have access to transit and understand how to use the system
- Ensure cars can conveniently move within and through the area

## Rosedale Master Plan and Traffic Study

(2016)

Goals:

- provide housing opportunities for all incomes
- support schools
- utilize major corridors with mixed-use development
- create a transportation system that accommodates a variety of modes
- enhance branding the physical environment
- protect Rosedale’s natural amenities

Key Recommendations:

- Road diet and cultural amenities at 47th Street between Mission Road and Rainbow Boulevard
- Mixed-use, transit oriented development at Rosedale Crossing, the intersection of Southwest Boulevard and Rainbow Boulevard/7th Street, including structured parking, surface parking, a transit hub, bike lanes, and trail access



# Existing Plans and Studies

## Stormwater

Approximately 4,300 acres of stormwater drain into the Westside South Neighborhood. *“To address urban stormwater issues in the neighborhood, stormwater must be slowed-down and captured at the upstream source. While there are opportunities for green stormwater infrastructure to capture some of this drainage along Southwest Boulevard, this will not be enough to alleviate flooding issues. Rather, planning and funding should be focused on the upstream opportunities.”*

*[Burns & Mac]*

## Key Issues Summarized

- Dramatic elevation changes, especially on 31st Street
- Lack of east/west bicycle connectivity
- Limited connectivity to Penn Valley Park
- Excessive access points on thoroughfares, especially Southwest Boulevard
- Interstate cutting through neighborhood, inhibits connectivity
- Southwest Boulevard in Kansas River Floodplain
- Incomplete sidewalk network
- Limited transit service on periphery of neighborhood
- Street and sidewalk network disconnected, limited 31st Street crossings

## Greater Downtown Area Plan

(2018)

### Five Primary Goals:

- create a walkable downtown
- double the population downtown
- increase employment downtown
- retain and promote safe, authentic neighborhoods
- promote sustainability

### Transportation Goals:

- Complete gaps in the sidewalk system
- Maintain Sidewalks
- Improve Street Crossings
- Pursue Road Diets
- Develop a “Citywalk” Pedestrian Loop
- Develop Transit Alternatives
- Improve Service to Westside
- Implement Park and Ride to KCI
- Pursue Commuter Rail
- Preserve and enhance the grid system
- Pursue signal timing improvements
- Support Rail Freight Needs
- Create Complete Streets and Continue to Implement Streetscape Improvements.
- Conduct and maintain a complete inventory of bicycle and pedestrian facilities
- Implement Pedestrian Level of Service Criteria
- Remove barriers and improve connections between neighborhoods and activity centers
- Discourage surface parking lots and reconfigure street parking

### Key Recommendations:

- Form a developer to serve the public good
- Convert vacant lots into temporary pocket parks
- Create pilot projects for Green Infrastructure in order to measure benefits
- Incentivize green [& passive] building, urban forestry/agriculture, renewable energy
- Encourage private institutional partners to create Master Plans to coordinate expansion
- Activate underpasses; convert barriers into gateways or nodes
- Work with railroads to improve connectivity where they create barriers
- Fill gaps in urban fabric (surface parking, vacant lots, suburban development)
- Incentivize dense, mixed-use development within ¼ mile of existing activity centers & transit stops
- Connect to other activity centers with Complete Street Corridors
- Nodes should integrate neighborhood services - live, work, shop, eat, night life, etc
- Program activities at existing parks
- Improve appeal/safety of Penn Valley Park
- Make the Missouri River a priority and resource
- Provide Quality Basic Infrastructure for All Downtown Neighborhoods
- Utilize Public Spaces to Implement Green Solutions
- Give Priority Consideration to Infrastructure Projects That:
  - Facilitate development in priority areas**
  - Improve deteriorated areas [e.g. West Bottoms]**
  - Have multiple benefits**
  - Enhance safety and reduce potential damage**
  - Lead to private investment**
  - Have financial leverage**

# Additional Resources

## Urban 3

Recently, Urban 3 completed a fiscal value analysis of both Kansas City, MO and Kansas City, KS. Like most cities, what the data shows is that older neighborhoods, like the Westside, produce far more value per acre to the local taxing jurisdictions than newer neighborhoods in the more suburban areas.

## The Project for Lean Urbanism

Lean Urbanism is a set of policy and planning ideas created in the aftermath of the Great Recession. The intention was to find inexpensive ways to jump-start redevelopment, and to more directly empower people within neighborhoods through a variety of tools and work-arounds. The proposals generally aren't intended to make major change to city or local government policy, but to identify easier, less expensive ways to develop property and make public space improvements.

## Incremental Development Alliance

The Incremental Development Alliance (IDA) was created to train people how to become small developers, and take ownership of development in their own communities. A common refrain is, "no one is coming to save you, so be the solution yourself." IDA runs one and two-day workshops that give people the tools to understand how to complete very simple development projects, such as a duplex.

IDA has a local chapter in Kansas City that meets monthly and acts a support group and educational alliance. This group and its tools could be a tremendous asset for the Westside, encouraging people to build wealth themselves while improving the neighborhood.

# Planning Trends

## Active Transportation

Planning documents influencing development along Southwest Boulevard and 31st Street detail the importance of active transportation. Active transportation includes everything not motor-operated. Pedestrians, bicyclists, and wheelchair users need to be considered in all transportation decisions. The planning documents reviewed indicate the public's desire to provide an environment where people want to walk and bicyclists have convenient routes. Both Southwest Boulevard and 31st Street are designated as Phase 2 of the Bike KC 5-Year Priority which provides an opportunity to expand the active transportation network. Beyond bicycle lanes and sidewalks, amenities serving active people should be included when planning transportation. Amenities such as bicycle parking, drinking fountains, benches, tire pumps, and others will further create an environment conducive to walking and cycling.

## Transit Oriented Development

Many of the plans reviewed highlight potential nodes for development and express transit access as a priority. These nodes are often located along busy corridors or at high-volume intersections where transit services are present and opportunities for transit hubs may be realized. Higher-density, transit oriented development has the opportunity to provide desired housing, support transit usage, and reduce the need for parking: all of which serve goals expressed in the reviewed documents.

## Complete Street Design

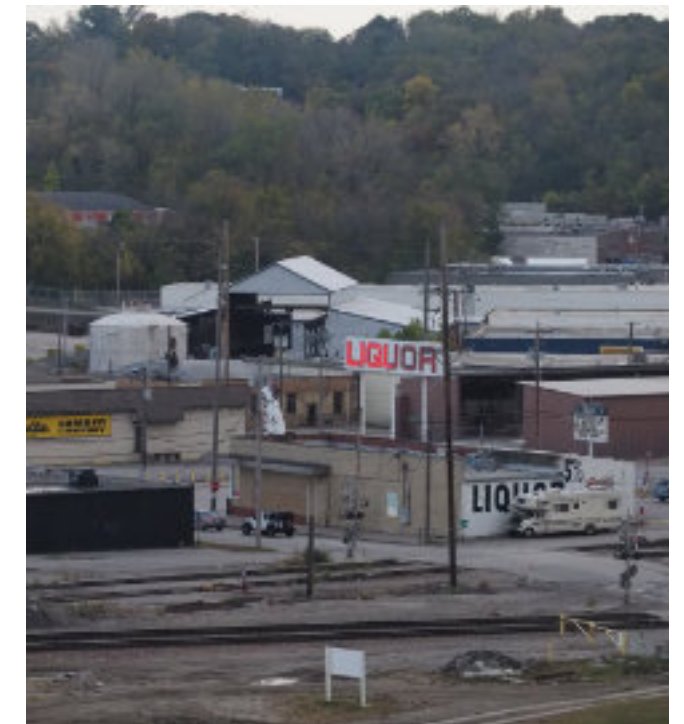
Many of the planning documents reviewed suggest implementation of complete street principles. Complete streets are roadways designed and operated to enable safe, attractive, and comfortable access and travel for all modes and users regardless of age and abilities. The documents guiding development in the study area emphasize the necessity of providing a variety of transportation options. Complete streets support vehicular circulation without sacrificing walkability or access to transit. The inclusion of complete street principles in roadway design is reinforced by the Complete Street Ordinance of Kansas City. The ordinance also reinforces the importance of incorporating green infrastructure, innovative storm-water management, street trees, and appropriate lighting in all transportation projects. Ultimately, the goal of complete street design is to facilitate the flow of goods and people possible in the public right-of-way by providing infrastructure for various modes of travel.



# Project Goals

This plan seeks to develop a planning overlay for the Westside Neighborhood to work in conjunction with wider area plans adopted by Kansas City, Missouri. This overlay must address the following in:

- Updating land use expectations
- Reducing industrial zoning
- Strengthening the residential core
- Improving the street network and community mobility
- Bringing transit services to the community in a meaningful way
- Creating a Mobility Hub and neighborhood Commercial/Retail Center
- Implementing neighborhood enhancements to encourage aging-in-place, reinforce neighborhood pride, leverage the stock of vacant land, and connect the residents with surrounding communities
- Creating a community asset to acquire vacant residential properties and assist community members in planning for the future of their properties.
- Conceiving big picture opportunities to exhibit the unique asset of the neighborhood's culture and history
- Integrating Green Infrastructure & Rainwater Capture
- Defining Neighborhood Gateways
- Promoting Economic, Social, and Environmental Justice





# Executive Summary

## Project Scope

This “Planning Sustainable Places” (PSP) grant project was crafted around the 31st Street arterial, which from Southwest Trafficway on the east to Southwest Boulevard on the west is an imposing border between the Westside Neighborhood to the north and the Coleman Heights neighborhood to the south. The geography of the street and the lack of neighborhood connections to the street, coupled with the streets common use as a rapid connection from I-35 to the Midtown area of Kansas City, creates a challenging situation for the neighborhood.

In many ways the imposing boundary for the Westside community posed by 31st Street is symbolic of the greater hardships which has faced the community over the past century. As one of the oldest urban neighborhoods in Kansas City, the Westside has been passed over and isolated. The transportation network of interstates, trafficways, and high-speed arterials have encircled and bisected this neighborhood. The residential character has eroded as industrial uses have crept further into the neighborhood, driven by decades of land-use planning that focused on these uses. Now the Westside neighborhood is faced with needing to plot a strategic approach to resolving the important issues it faces relating to:

- Boundaries/Identity
- Residential Health
- Connections/Transit
- Future Opportunities

## Boundaries/Identity

The primary focus area in this study is bordered by three high-speed and high-capacity streets (31st Street, Southwest Boulevard, Southwest Trafficway) with few of the interior residential streets penetrating the veil of industrial areas to connect to these arteries to the surrounding city and region. The community has identified the following priorities:

31ST STREET: Initiate a detailed study of this corridor with the City, Coleman Heights, and adjacent property owners determining the character of this mile-long corridor. The Westside communities wish to widen the right of way to the north to provide 1) a broad pedestrian pathway, 2) bike lanes, and 3) a median down the center to create a more beautiful and connected corridor.

SOUTHWEST BOULEVARD: Initiate a detailed study of this corridor with the City and adjacent property owners from 31st Street east with a focus on 1) improve pedestrian walks, 2) necking-down the roadway at intersections to shorten the pedestrian crossing, and 3) create a dedicated bicycle track along the southern edge of the road, closest to the residential community.

## Residential Health

The isolation, industrial growth along SW Boulevard, and barrier of I-35 within the study area has negatively impacted this historically multi-generational single-family residential neighborhood. As the City has grown and attitudes that prioritize large commercial centers over neighborhood markets have prevailed, the Westside neighborhood has lost out on economic opportunities as those developments have gone to other communities. To change these fortunes for the community, this Master Plan proposes:

MERCADO: Perhaps the anchoring feature of the Westside Master Plan is the concept of a Mercado (mobility hub) at the intersection of 31st Street and Southwest Boulevard that could focus transit connectivity and an economic commercial center at the same location. ***This plan recommends that the next and perhaps most important step, is to initiate a feasibility study of the Mercado to examine demographic and economic realities and determine the best model of commercial investment.*** The community desires that this component will serve as a long-term anchor, job creator, and sustainable economic engine for the community.

HOUSING: The Westside wishes to stem the tide of continued house losses and create tools to help residents reinvest in their properties and leave a legacy to their children for generations to come. To achieve this, the community wishes we must go beyond the current incentives for creating affordable housing and establish new precedents in providing 1) financial education, 2) access to capital, 3) access to the tools, machinery, and knowhow for repair and maintenance, and 4) create a land bank that can preserve properties today for residential investment tomorrow.

INFRASTRUCTURE: The streets, sidewalks, and alleys in this neighborhood have declined over the years and addressing economic and residential opportunities requires that the basic infrastructure is also addressed to 1) create a safe pedestrian network, 2) improve connections north and south at the I-35 embankment, and 3) address the chronic flooding that comes from being the community at the bottom of a 4,300-acre watershed.

# Executive Summary

## Connections/Transit

The Westside neighborhood lacks adequate connections to the surrounding urban fabric and more importantly connections to jobs and the basic needs of grocery, pharmacy, and other goods necessary for daily life. To overcome these challenges the community has identified the following priorities:

RIDE KC: As the City and KCATA (the regional Transit Authority) continue to envision the future of transit services in the region, the Westside community seeks to become more connected to surrounding job opportunities for Westside residents and strengthen the community's own economic development opportunities. This can be done by allowing other transit users the opportunity to engage with the new Mercado (Mobility Hub) and experience the cultural richness of this historic Latino community.

TRAILS: This plan has carefully considered the MetroGreen and TrailsKC plans for the region and the community feels that the long-forgotten rail corridor that diverges from Southwest Boulevard up the hill to the south is a unique strategic opportunity. That corridor alone can help to transform the nature of this area with more businesses and housing while connecting pedestrians to the businesses along 39th street and further south to Westport, the Plaza, and beyond.

## Future Opportunities

The foregoing points to this plan are steps the Westside prioritizes as the most immediate short-term to mid-term needs. There are a few more visionary long-term items the Westside Community has voiced as goals they wish to engage with the City and surrounding communities to study.

CAMBRIDGE CONNECTOR: If improvements to the Cambridge Circle interchange on I-35 proceed in the future, the Westside Community steadfastly advocates for an at-grade connection to Southwest Boulevard. Any alternative that bridges Southwest Boulevard would pose dire consequences to the strategic vision outlined in this Master Plan

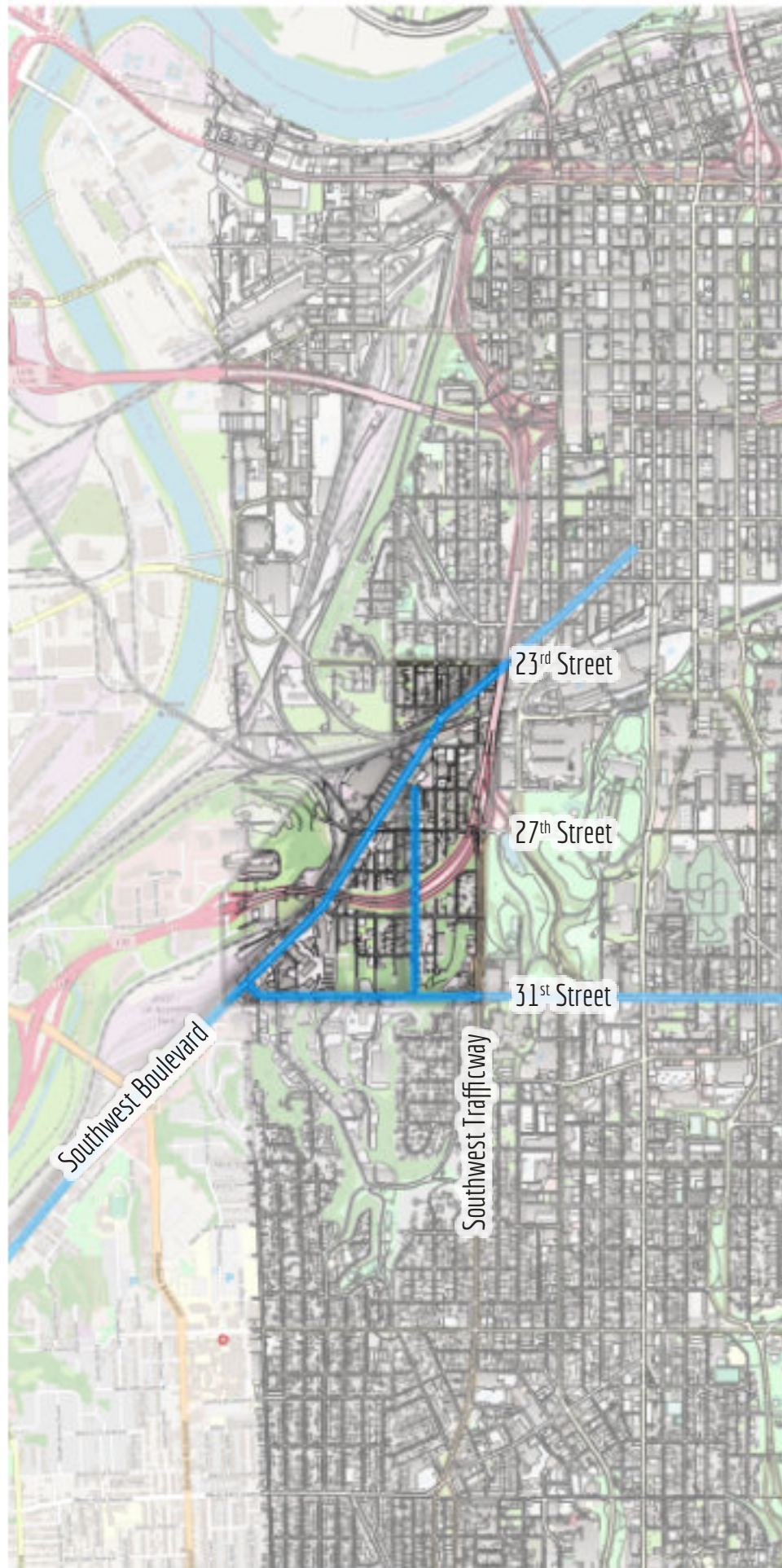
I-35 REALIGNMENT: This interstate embankment that bisects the Westside neighborhood is symbolic of a bygone area when families were moving to the suburbs and automobiles were affordable to a broader cross section of the population. Times have changed, people are moving back into urban areas, cars are affordable to a shrinking cross section of the population, and the I-35 embankment has created hardship for this community. ***The Westside community wishes to engage with regional leaders, the Missouri and Kansas departments of Transportation, and the City to begin planning know for possible realignment of the interstate the next time major investment in the viaduct is required.***

## Conclusion

There are so many opportunities before the Westside neighborhood at this time that this PSP study could simply not go into detail on each element that the Community views as a strategic priority. Rather, this Master Plan sought to present a strategic vision for the future, for healing old scars, and for embracing new connections with the fabric of the City and neighboring communities.

This final Master Plan report is a living document that the Westside Community and Kansas City can use as a roadmap for change.





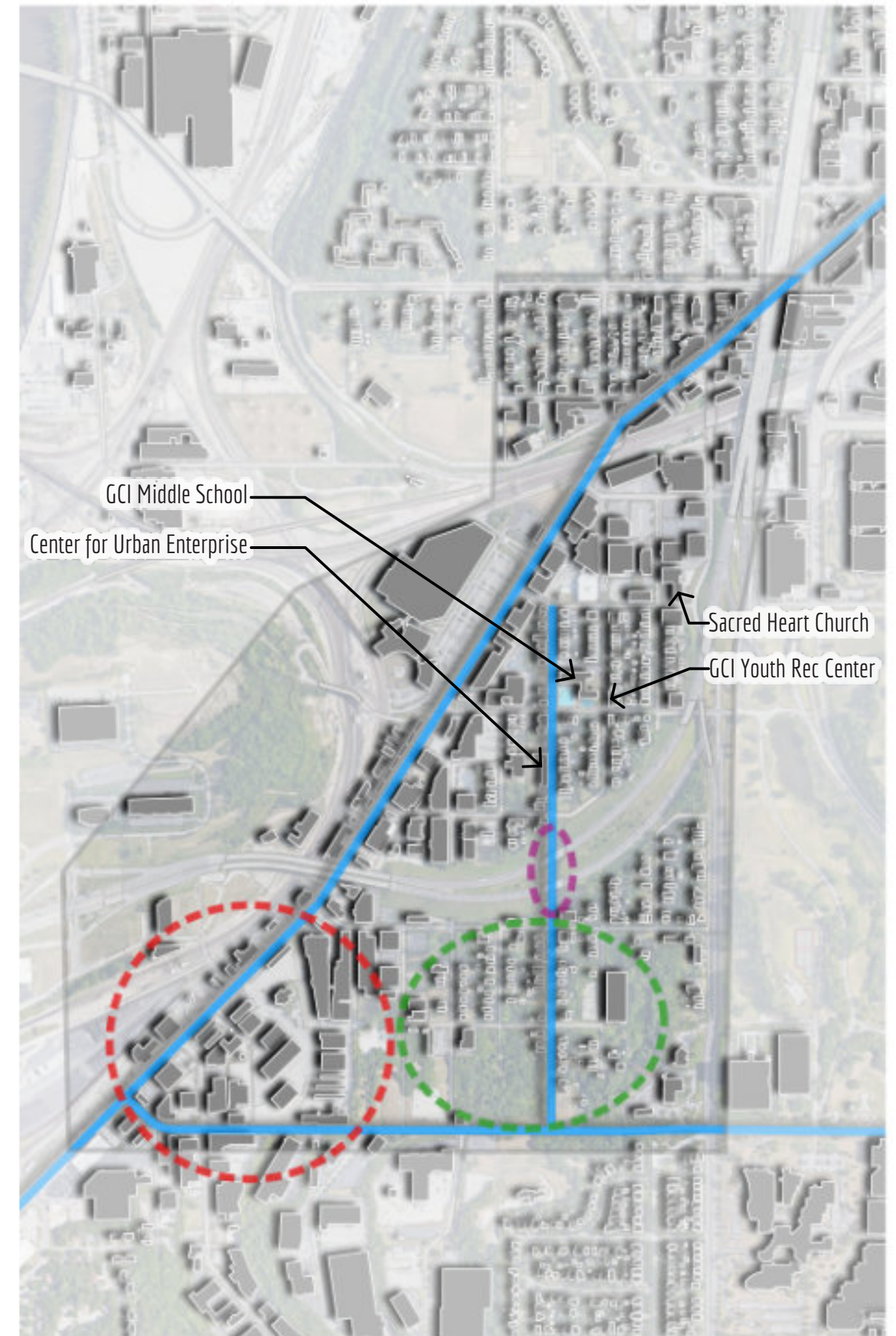
## Existing Conditions

This neighborhood, the Westside Neighborhood, is one of Kansas City's oldest communities. The working-class neighborhood grew to house laborers for the meat-packing industry in the West Bottoms. The Mexican Revolution (1910-1920) brought many more immigrant workers to the area, and the area soon became the center of the city's growing Hispanic culture.

Though the neighborhood was essential to city commerce, it was redlined early in the 1900's for racial reasons, which meant residents could not insure their houses or apply for mortgages the way residents in the non-redlined parts of the city could. Redlining also tended to discourage public and private investment in the redlined area, which might explain the lack of parks, boulevards, and fountains that are so common elsewhere in the city.

Over the last 70 years, the neighborhood fabric has been split by highways and railways to feed the growing industrial sector, with callous regard to the people that live in the neighborhood. Industrial zoning abounds, despite recommendations by the 1995 Westside Neighborhood Plan, which were auspiciously adopted by the city. Also counter to the 1995 plan are the recent proposals for high-density residential developments in the neighborhood.

Prior actions have not only crippled neighborhood continuity, but have also impaired residents' ability to build wealth as other neighborhoods have done through real estate ownership.





Aerial Photograph, Looking South (Circa 1950)

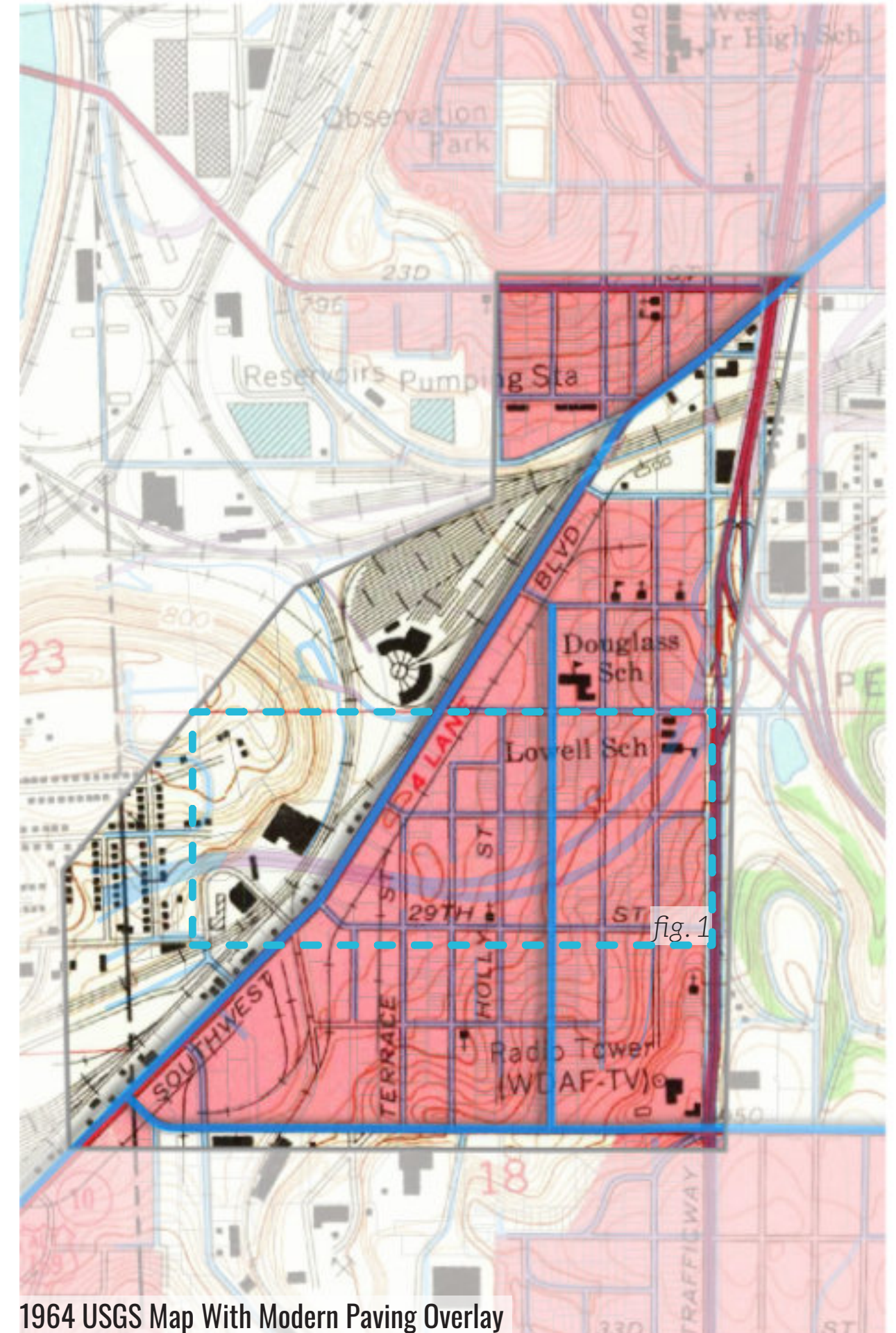


## Planning History

The placement of freeways and high-speed roadways, along with encroachment of industrial and commercial development into the neighborhood has all conspired to directly harm the opportunities of the residents.

No other neighborhood in our city has been treated with such disregard for placemaking and community continuity in the manner that this neighborhood has been treated. Although the neighborhood was set up for failure, its resilience over the decades attests to the strength of the community. Imagine what the community could become if it is truly set up for success.

1950 Sanborn Map



1964 USGS Map With Modern Paving Overlay



# Zoning

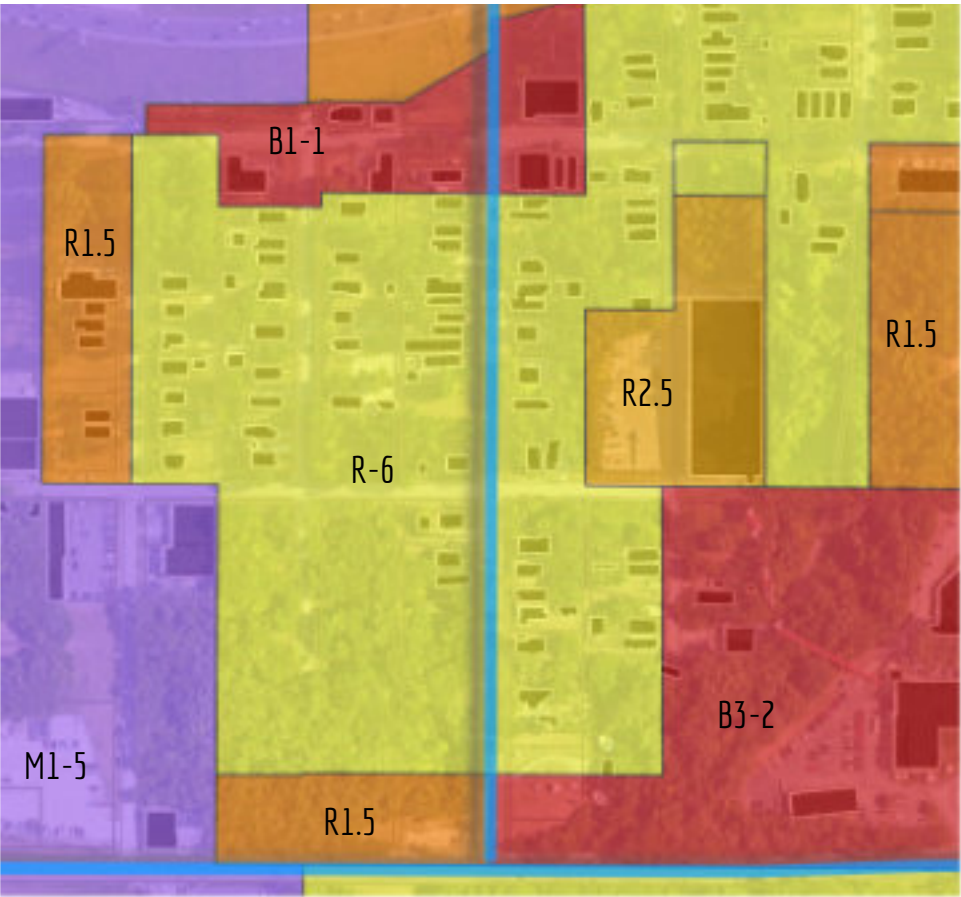
Zoning in the neighborhood should be simplified, since the current zoning does not comply with the intent of the 1995 plan, and leaves far too much room for unfavorable interpretation by developers. All of the industrial zoned property should be changed to B1 (Business). This would allow current uses to continue while promoting a future use that is more supportive of local businesses that provide neighborhood needs, and allows future development of mixed-use commercial and apartment buildings.

The residential portion should also be simplified and unified to create a single, contiguous, R6 (Single Family) area. This change will promote the reinvestment in single family homes to build back the neighborhood in a cohesive way.

Since the city’s zoning definitions are based on recent development trends that reflect suburban attitudes, they lack some nuance and should not be applied to such a unique historic neighborhood.

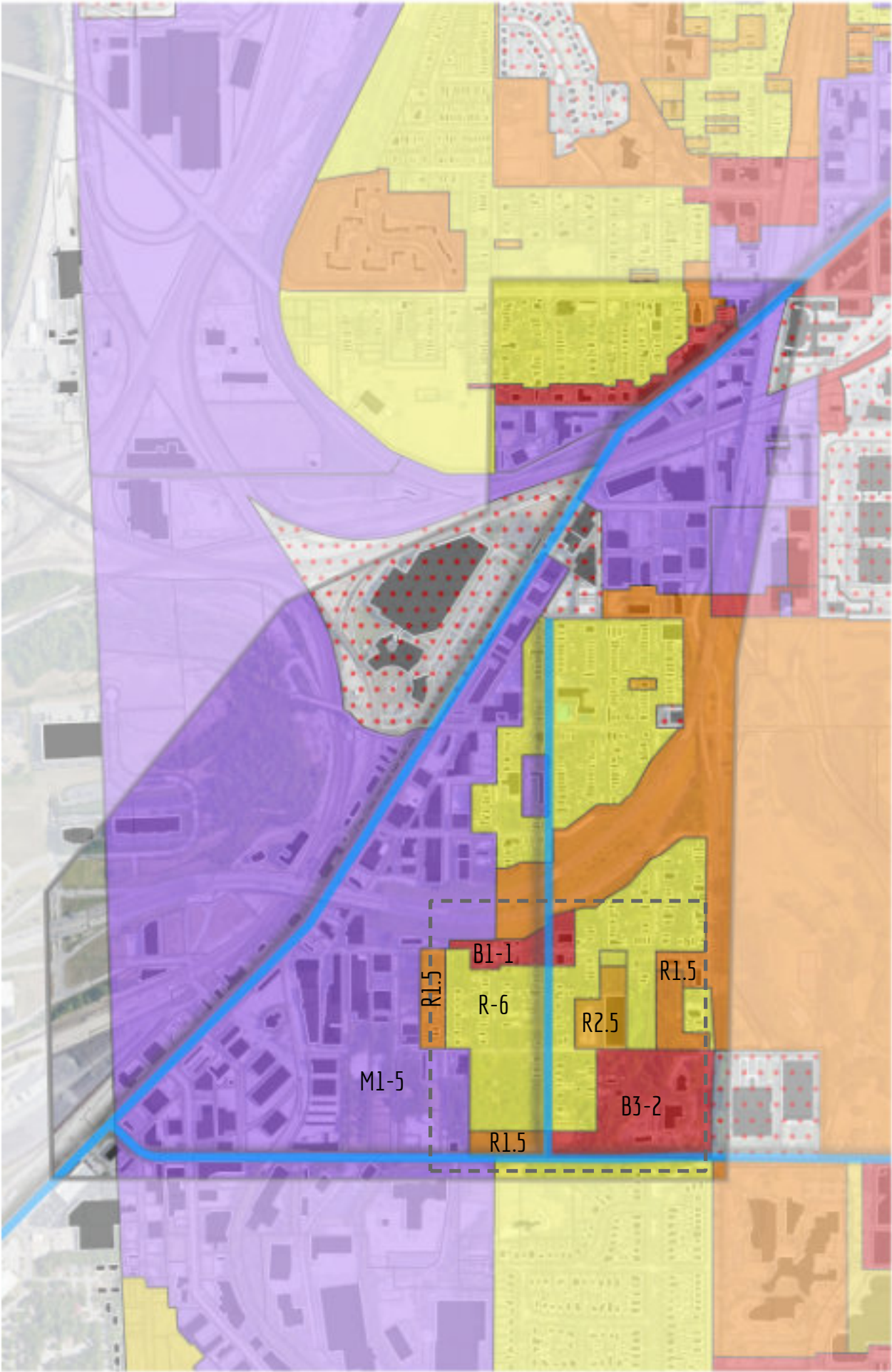
This project is not seeking formal historic place registration, as it is likely to place undue burdens of red tape on the neighborhood, but the goal of neighborhood preservation can be still be reached in more creative ways.

The Westside should have a special form-based zoning overlay, so that the neighborhood could ensure that new projects fit the existing character. This strategy has been employed successfully in other cities. As a part of this overlay, the R6 zoning should be modified to allow the neighborhood to allow accessory dwelling units to be constructed behind or beside the main residence.



## Legend

R-6 (Modified)	Single Family Homes
Single Family Home; Modified Overlay allows Accessory Dwelling Units and reduces minimum lot width to 25' to match the existing neighborhood	
R-2.5	Duplexes & Townhouses
Change to R-6 where land use is currently vacant or compliant with R-6	
R-1.5	Multi-Unit Buildings
Leave zoning as-is where current land use matches zoning; change to R-6 where land is vacant or compliant with R-6	
M1-5	Light Industrial
Change to B1, Neighborhood Business; over time, as the neighborhood grows, introduce B3 and B4 districts along the Boulevard	
B1-1, B3-2	Business
Existing Business zoning to remain as-is	
Urban-Renewal-District-to-Remain	



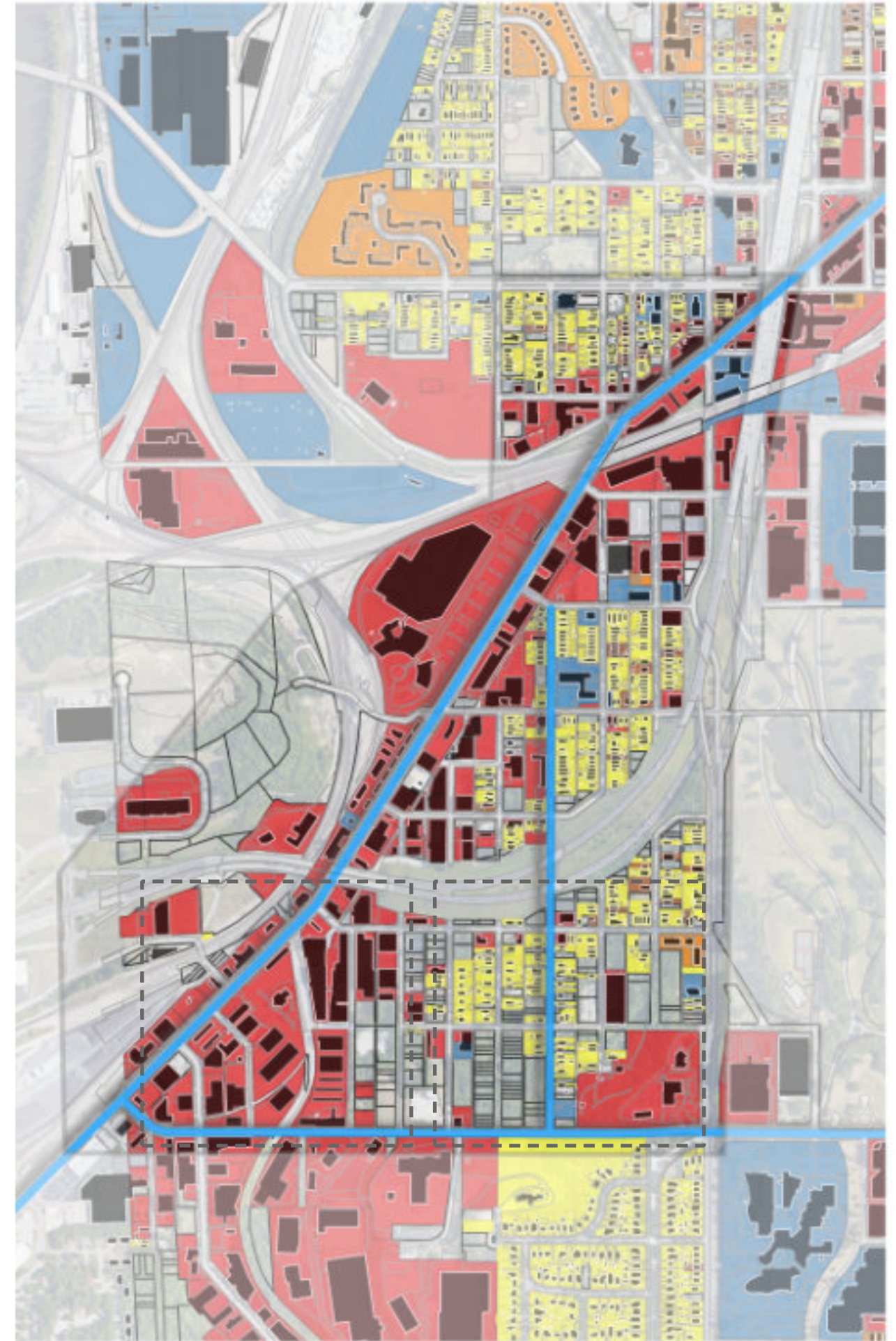




## Land Use

Current land use in the neighborhood is a patchwork of assorted residential densities and commercial businesses. Industrial businesses are mixed in with storefronts, often next door to single family homes.

In the future, the land use approach should promote growth of commercial business and retail services in the B1 zoning district and build up the inventory of single-family homes in the R6 zoning district. Providing a buffer between these two districts will be a mixed-use zone (entirely in the B1 district). This zone will allow residential and business enterprises to mix in multi-story buildings and also allow for apartment structures to be located on the edges of commercial and retail shopping.

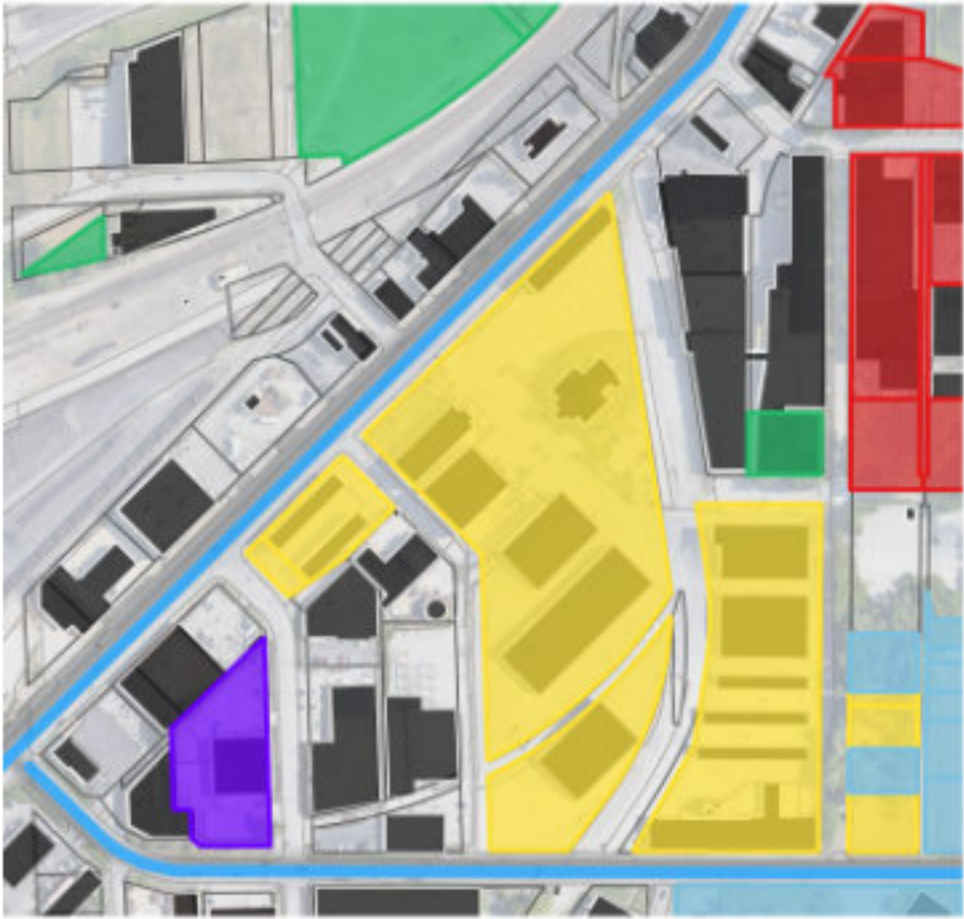


## Legend

Single Family Residential	Commercial
2-4 Family Residential	Institutional
5+ Family Residential	Vacant







# Land Ownership

Several key players have been assembling parcels along the fringes of the southern portion of the original single-family neighborhood.

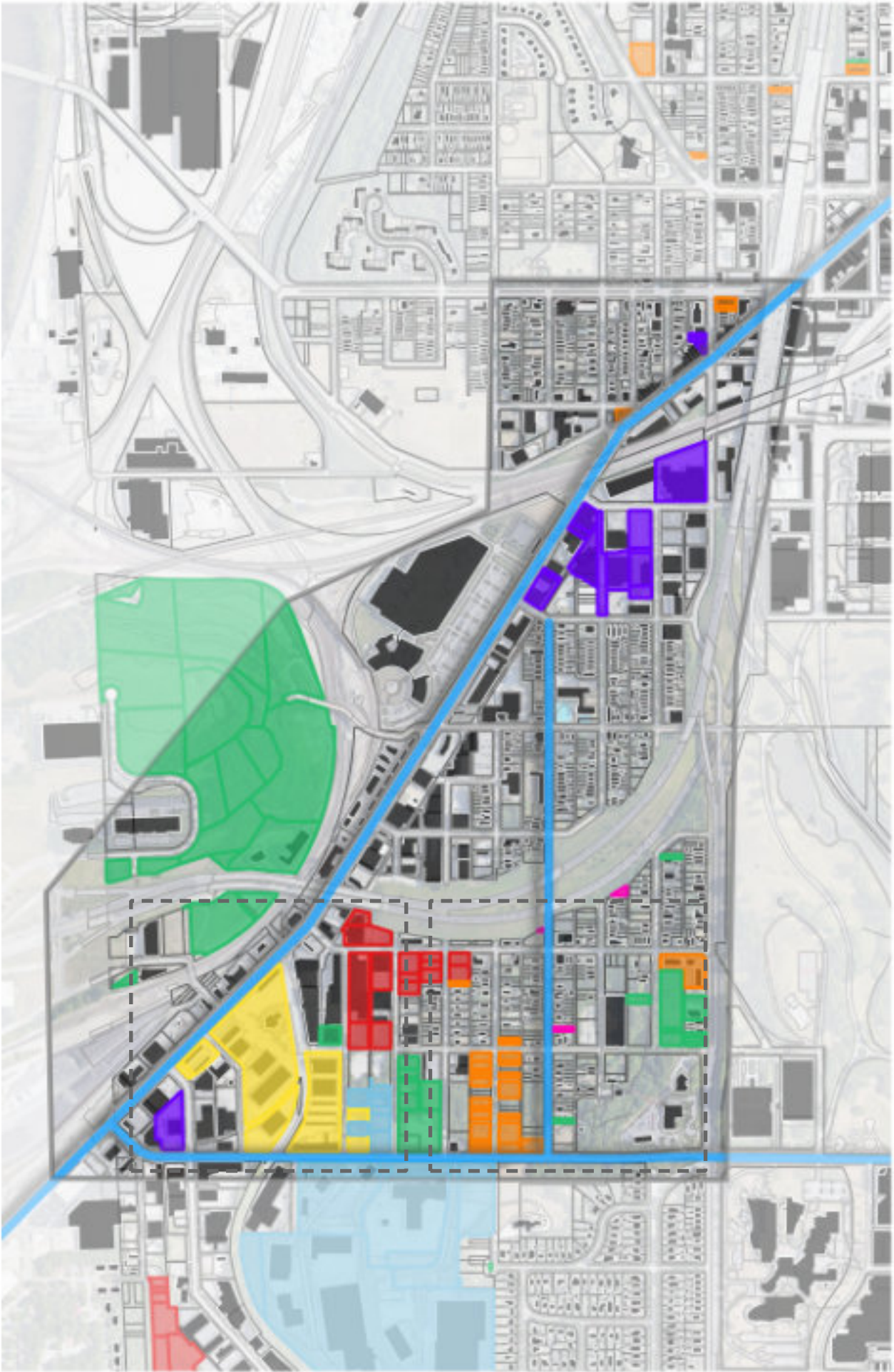
The 1997 Westside plan would require these developers to build only low-density residential.

The relatively low density of the industrial area at the corner of 31<sup>st</sup> Street & Southwest Boulevard does present an opportunity to intervene with a project that complements the original neighborhood instead of replacing it.



## Legend

- |                   |                  |
|-------------------|------------------|
| Copaken Brooks    | Westside Housing |
| Boulevard Brewery | Schutte Lumber   |
| KCMO Land Bank    | Dean Realty      |
|                   | Koch Equipment   |

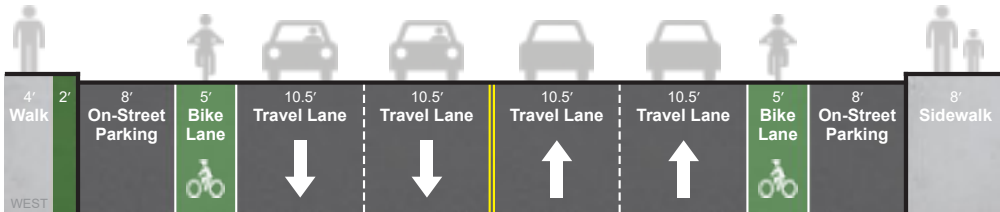




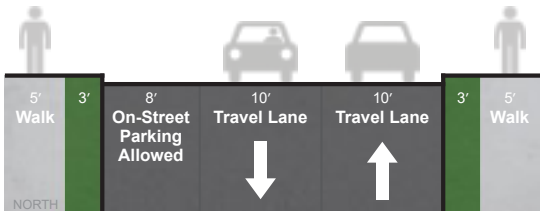
# Streets and Traffic

The residential community in the study area is isolated with limited connectivity to the east (Southwest Trafficway) and the south (31st Street). The best connectivity is along Southwest Boulevard which spans the northwest edge of the neighborhood but is a densely developed commercial/industrial corridor.

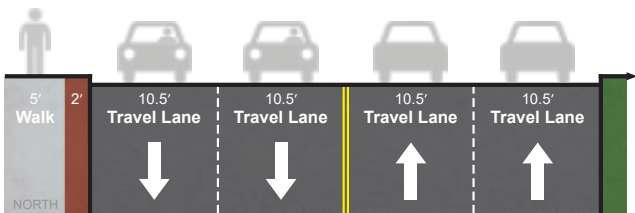
**Southwest Boulevard [North of 31st Street]**  
Existing Typical Section [Approximate]



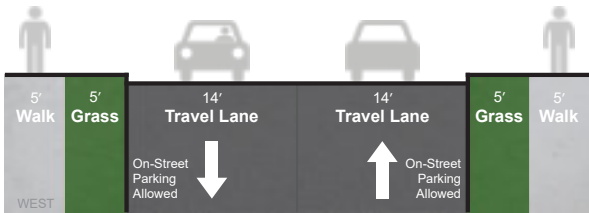
**27th Street [East of Southwest Boulevard]**  
Existing Typical Section [Approximate]



**31st Street [East of Jarboe Street]**  
Existing Typical Section [Approximate]



**Jarboe Street [North of 31st Street]**  
Existing Typical Section [Approximate]



## Southwest Boulevard

This street heavily favors automobile traffic, with a generous four lanes. It offers no physical buffers for protection of bicyclists, and the sidewalks are not inviting to pedestrians.

## 27th Street

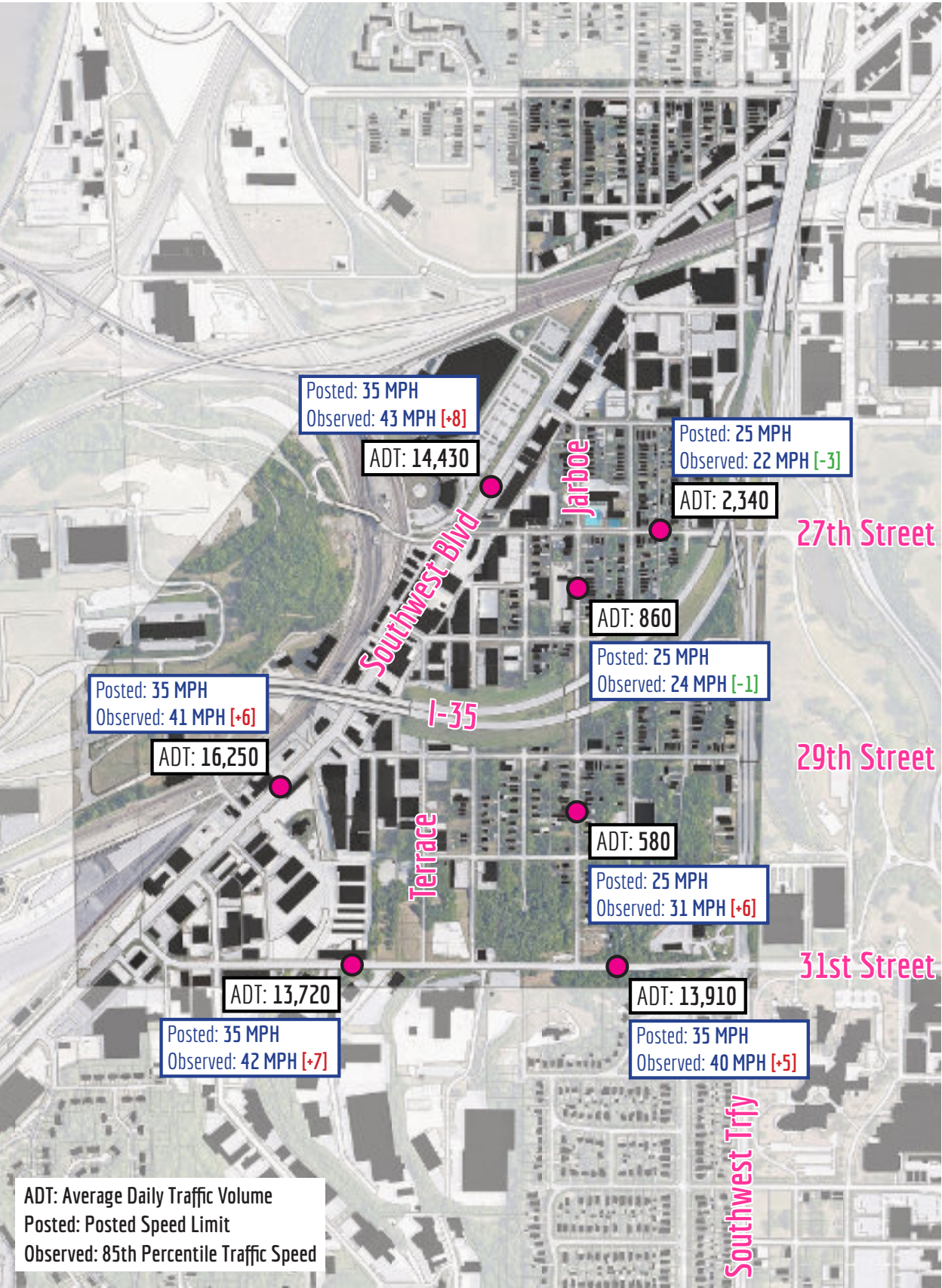
The direct connection to northbound I-35 at 27th Street and Southwest Trafficway has altered the character of this small neighborhood street. Schoolbuses and parents have to compete with commuters during rush hour, and pedestrians must be extraordinarily vigilant when crossing.

## 31st Street

With plenty of room and little visual distraction, this long steep hill encourages unconscious speeding. The speed of traffic and the incomplete sidewalk make it highly uninviting to pedestrians.

## Jarboe Street

Jarboe Street is of two natures: the south half is steep and encourages speeding like 31st Street, while the north half is a more typical residential street. I-35's bridges separate the two halves, and their imposing nature discourages pedestrians from crossing between neighborhood fragments.





# Street and Sidewalk Network



### Challenges

- Dramatic elevation changes, especially on 31st Street
- Lack of east/west bicycle connectivity
- Limited connectivity to Penn Valley Park
- Excessive access points on thoroughfares, especially Southwest Boulevard
- Interstate cutting through neighborhood, inhibits connectivity
- Southwest Boulevard in Kansas River Floodplain
- Incomplete sidewalk network
- Limited transit service on periphery of neighborhood
- Street and sidewalk network disconnected, limited 31st Street crossings

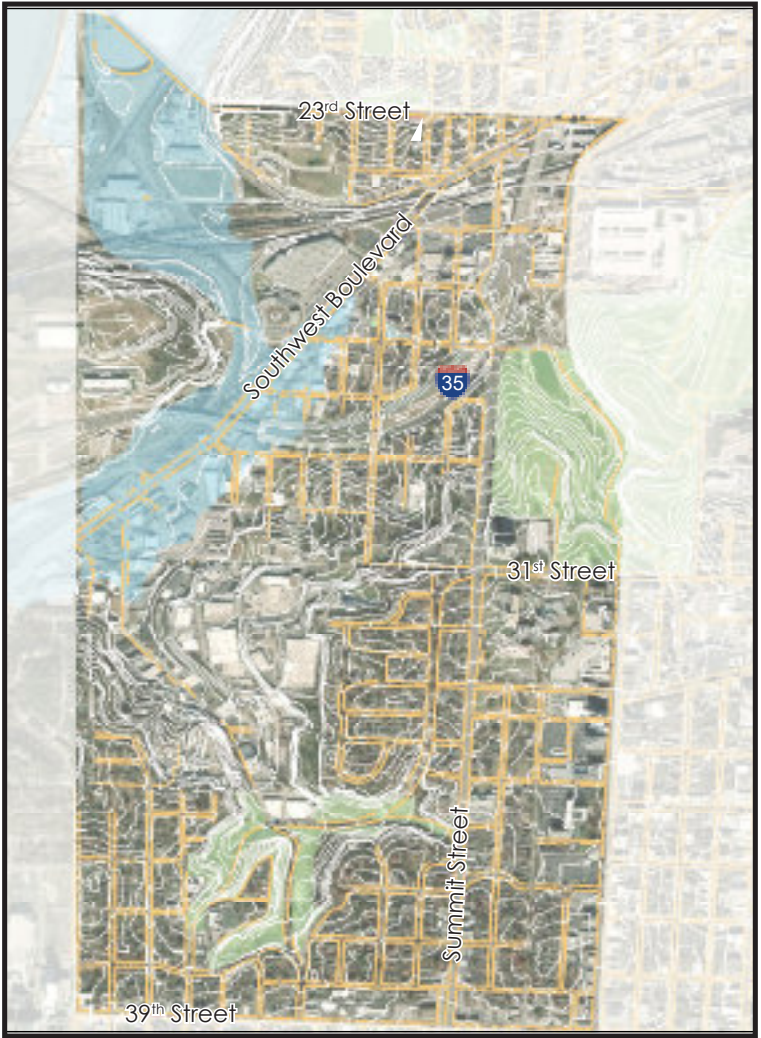
## Access Points

31<sup>st</sup> Street Study Area



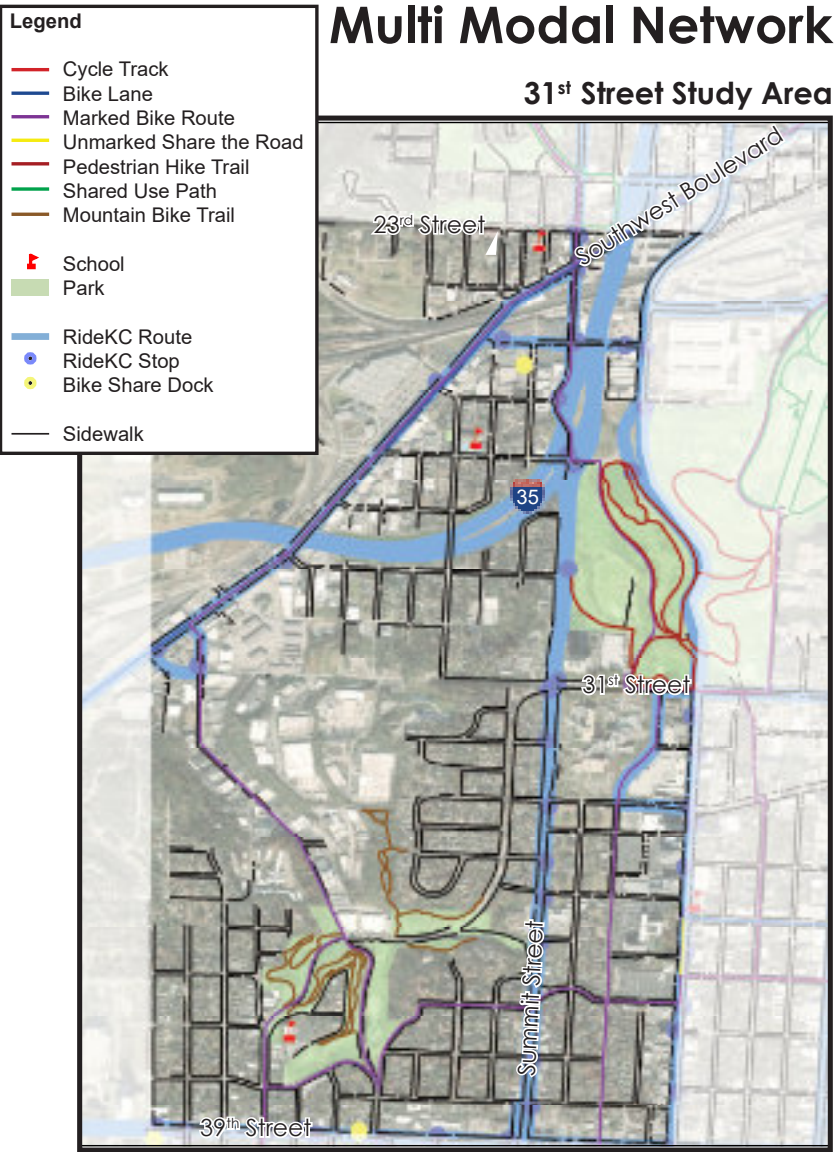
## Sidewalk Network

31<sup>st</sup> Street Study Area

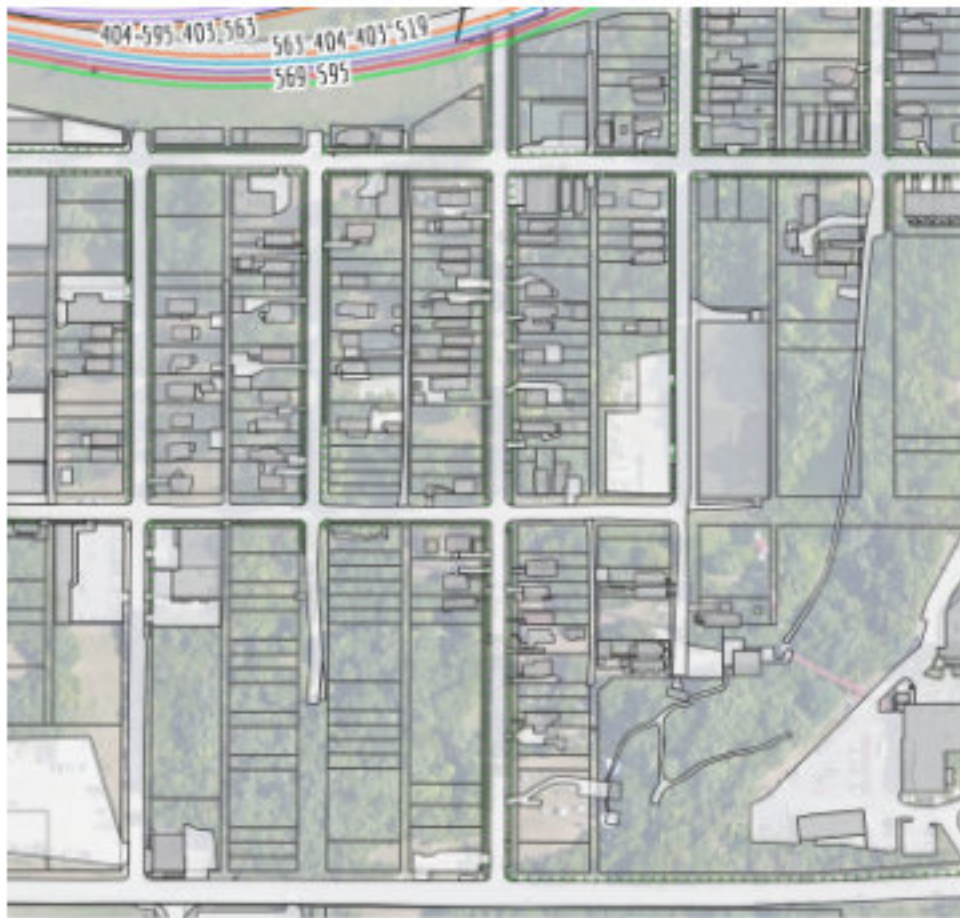
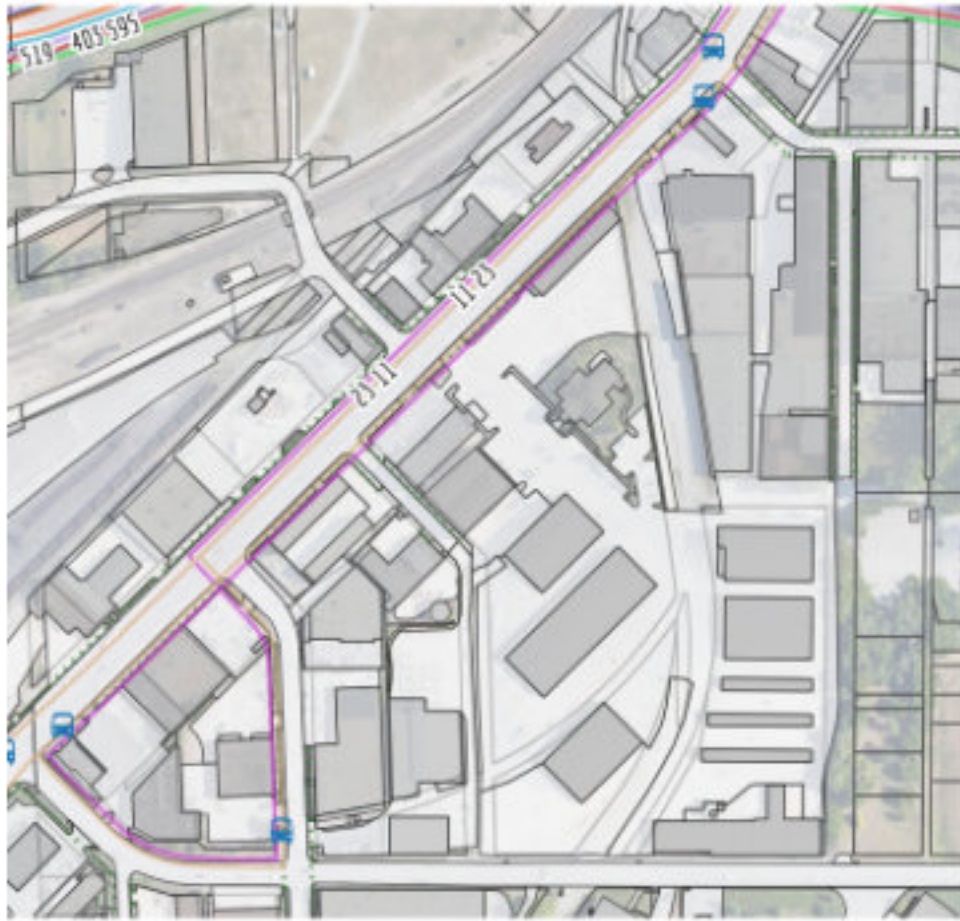


## Multi Modal Network

31<sup>st</sup> Street Study Area








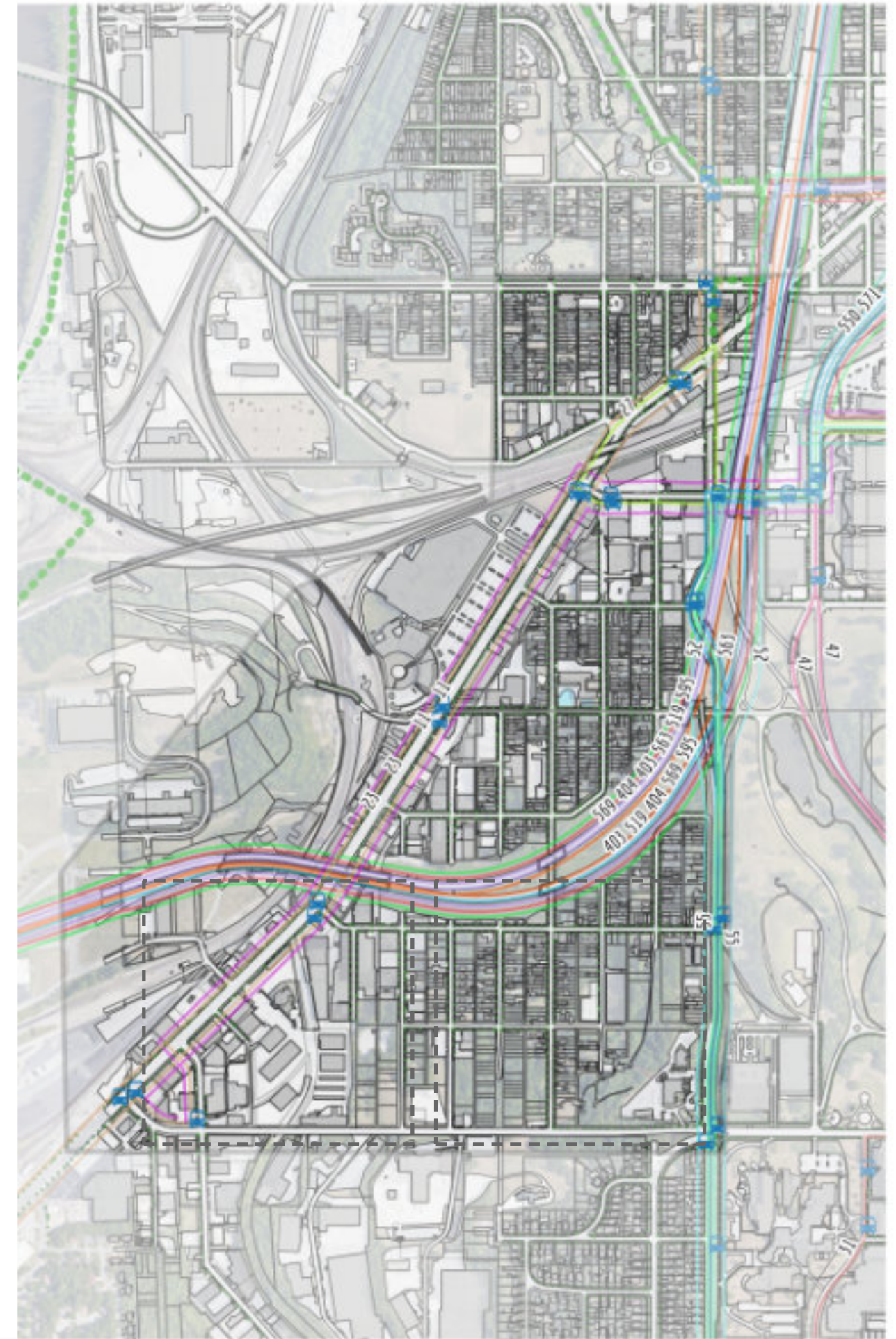


# Connections

Many bus routes pass through the study area. It appears to be primed to act as a transit hub, though the neighborhood currently only has access to a handful of routes.

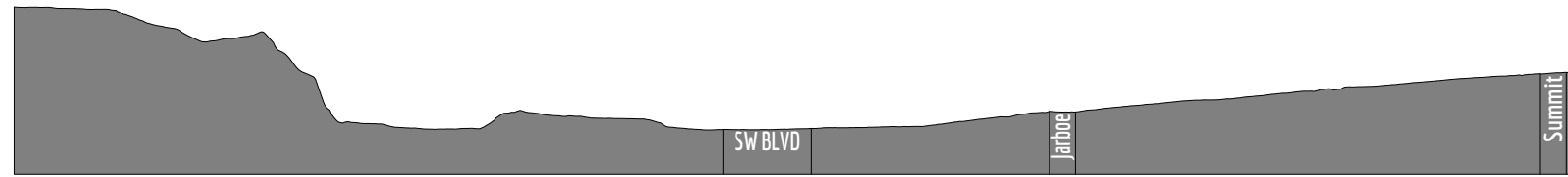
## Legend

- 11 Northeast-Westside/KU Med Center
- 23 23rd Street/31st & SW Blvd
- 27 27th Street/31st & Van Brunt
- 31 31st Street/Blue Ridge Crossing
- 435 JOCO Downtown Midday/K7 & Santa Fe
- 47 Broadway/Blue Ridge Crossing
- 403 Antioch-Olathe/Mission Transit Ctr
- 404 Metcalf-Downtown/Rosanna Sq
- 52 Ward Parkway Limited/Minor & Oak
- 55 Universities-Crossroads/3rd & Grand
- 563 Shawnee Express/Pershing & Main
- 51 Ward Parkway/Downtown Airport
- 519 Olathe Express/Pershing & Main
- 535 Shoal Crk-Liberty Exp/12th & Grand
- 550 Lee's Summit Exp/350 Hwy & Chipmn
- 569 South OP Express/Pershing & Main
- 570 Blue Springs/Pershing & Broadway
- 571 71 Hwy Express/Pershing & Broadway
- 595 Gardner-OP Express/12th & Washington
-  Bus Stop
-  Sidewalk
-  Trail

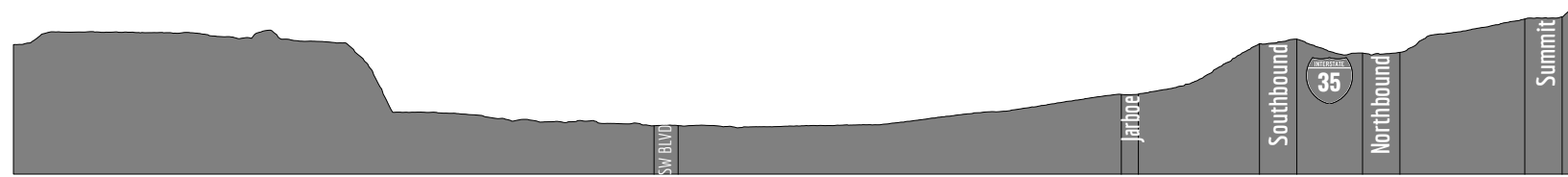




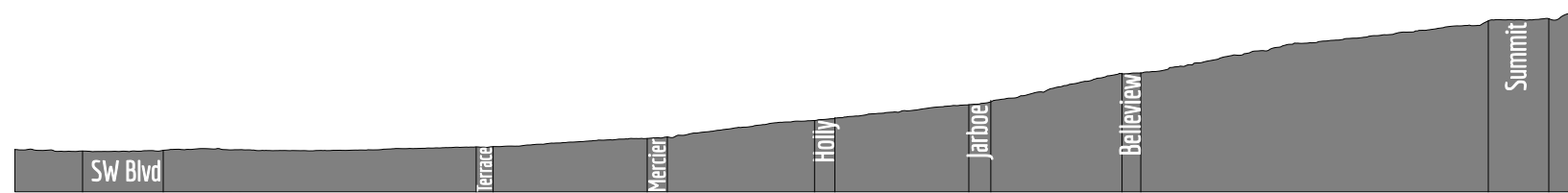
# Topography



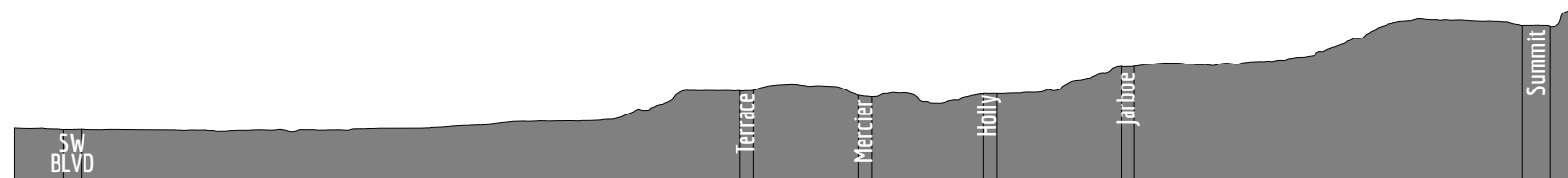
27th Street - North



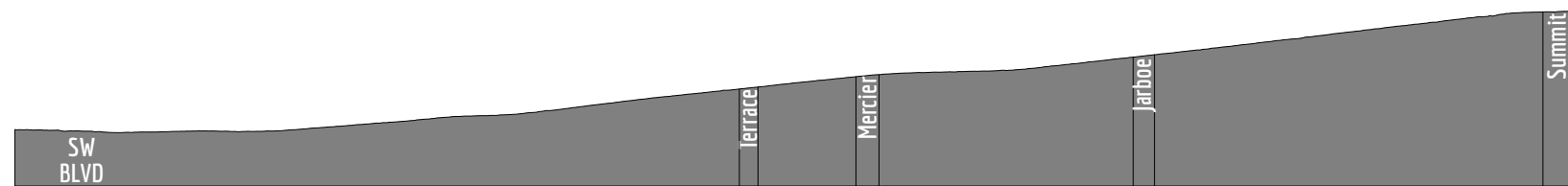
28th Street - North



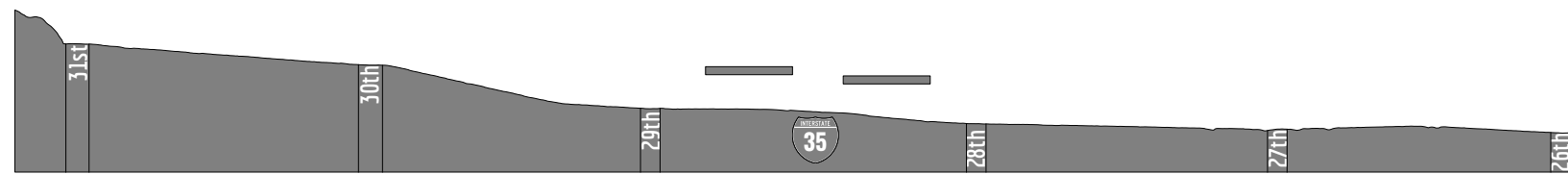
29th Street - North



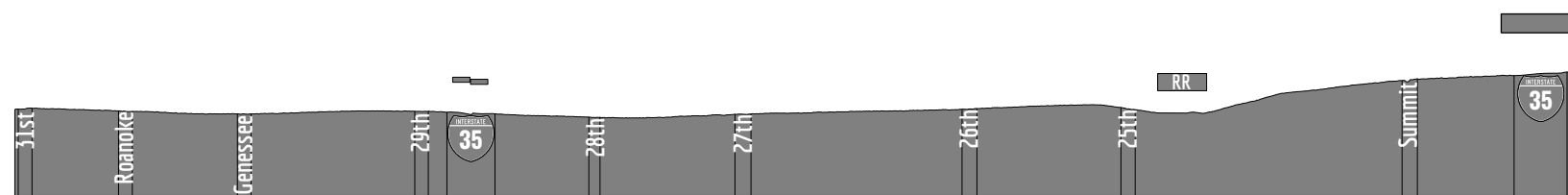
Hillside Between 30th and 31st - North



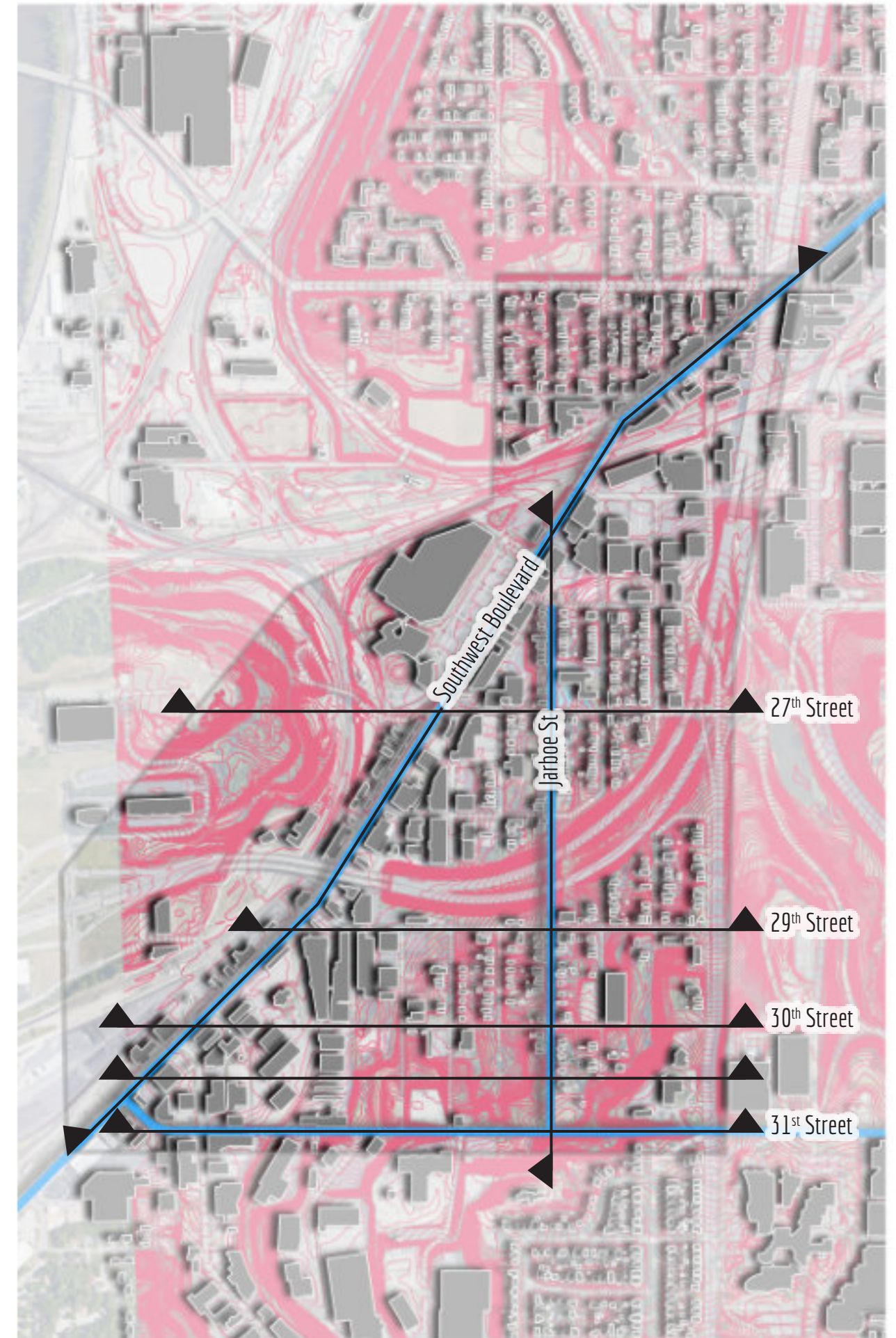
31st Street - North



Jarboe Street - West

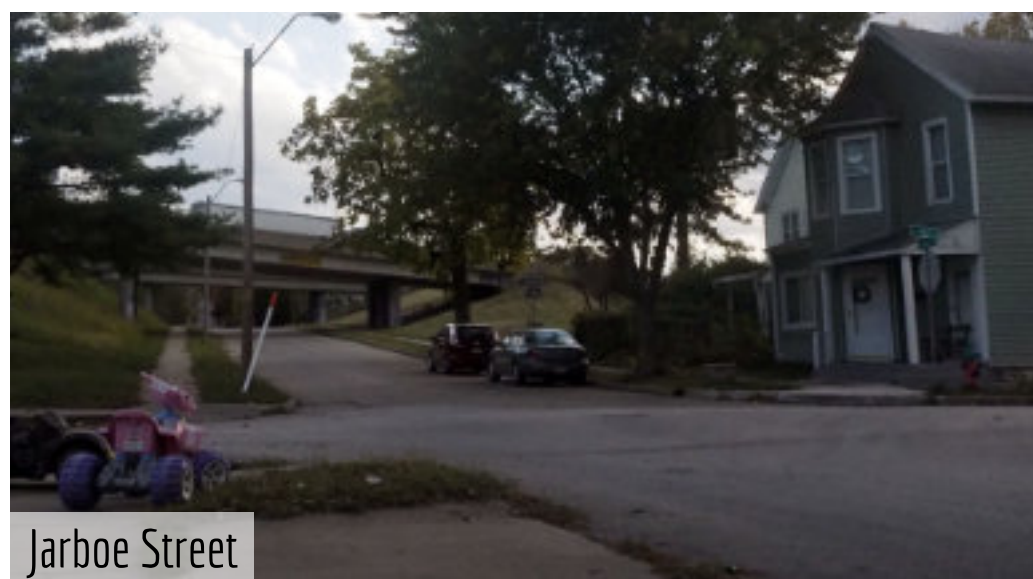
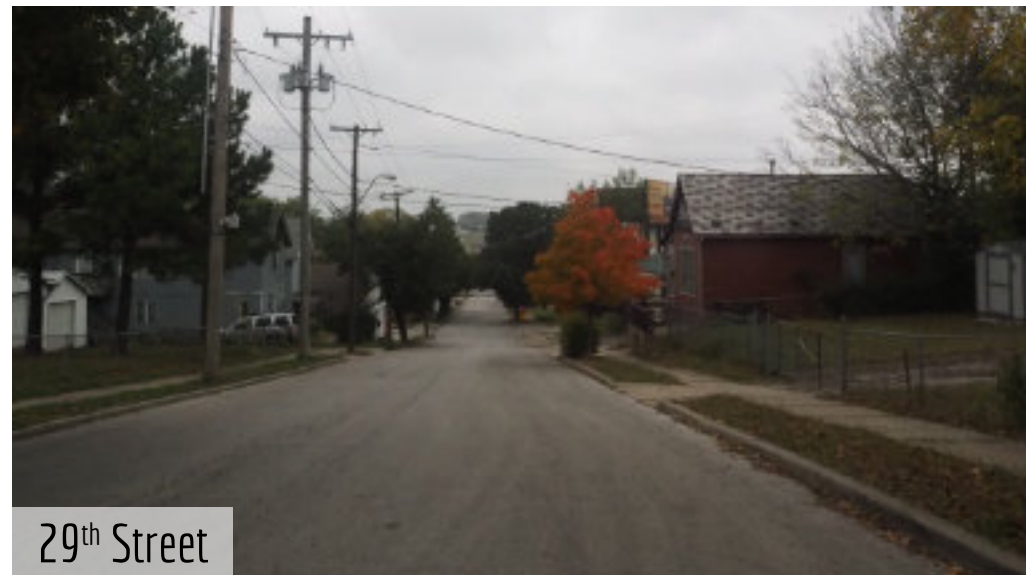
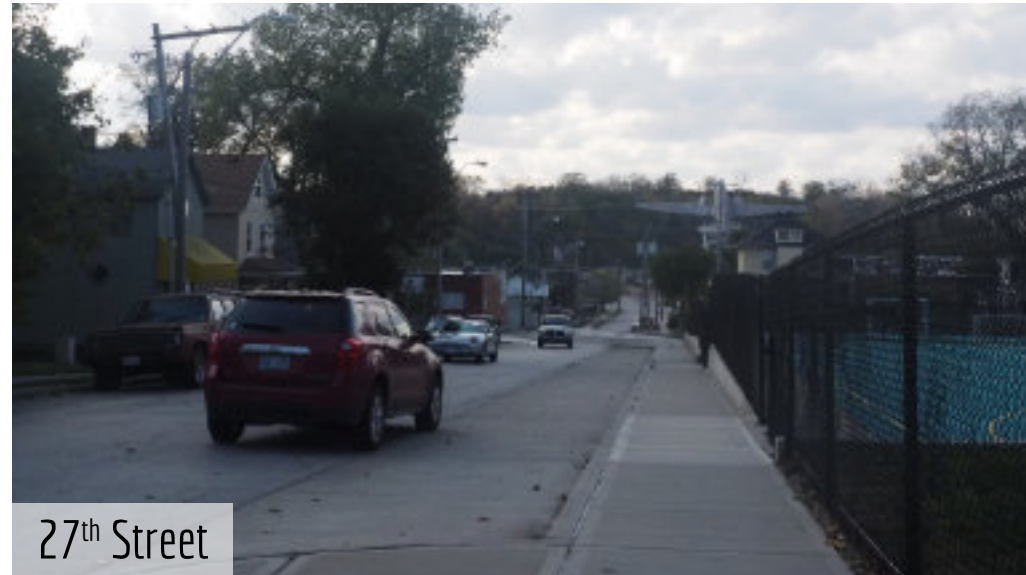


Southwest Boulevard - Northwest





# Complete Streets



*"Create a transportation system that increases connections between area neighborhoods and activity centers, promoting a cohesive community and orderly development. Use the transportation system to knit the area together, and promote orderly development. The transportation system should maximize connections to activity centers in the area for each mode of transportation. Activity centers are places where jobs or services are located, where there is a high density of residents or where lots of people will congregate for various reasons. Future requests for improvements should be prioritized when they provide these connections."*

*"Design streetscape to prioritize pedestrian movement and reinforce walking as the primary mode of transportation (see Transportation Chapter). A wide pedestrian pathway without "choke points" should be preserved as a priority during streetscape improvements. Prioritize street trees, benches, trash receptacles and landscaping over other enhancements in streetscape improvements."*

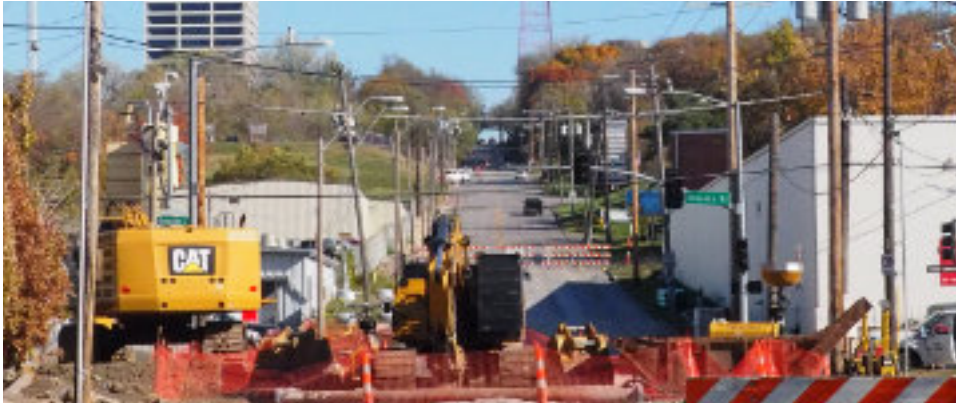
*"Implement road diets and improve bikeability in conjunction with streetscape enhancements."*

*"Transportation and streetscape improvements provide a large opportunity to introduce green stormwater infrastructure to help reduce impervious surfaces and increase stormwater infiltration."*

*-Greater Downtown Area Plan (2019)*



# 31st Street



The primary corridor of the study presents major challenges and opportunities. The corridor is a long steep grade, three-quarters of a mile long from Southwest Boulevard to Southwest Trafficway, with 200 feet of elevation change. The south edge of this corridor connects exclusively to industrial properties of Dean Real Estate.



The north edge connects to the Westside neighborhood at three points, but all these connections pass through a block or more of vacant land before reaching housing. A significant goal for the community is the animation of this north edge; the experience should link to pedestrian-oriented housing, not industry.

**Recommendations:** Perform a corridor study to see how public works can best meet the community's goals. The community believes that this area should focus on pedestrian access along the north side of the street (including bikes) since the south side of the street is at present industrial in nature with little need for walking or biking access.

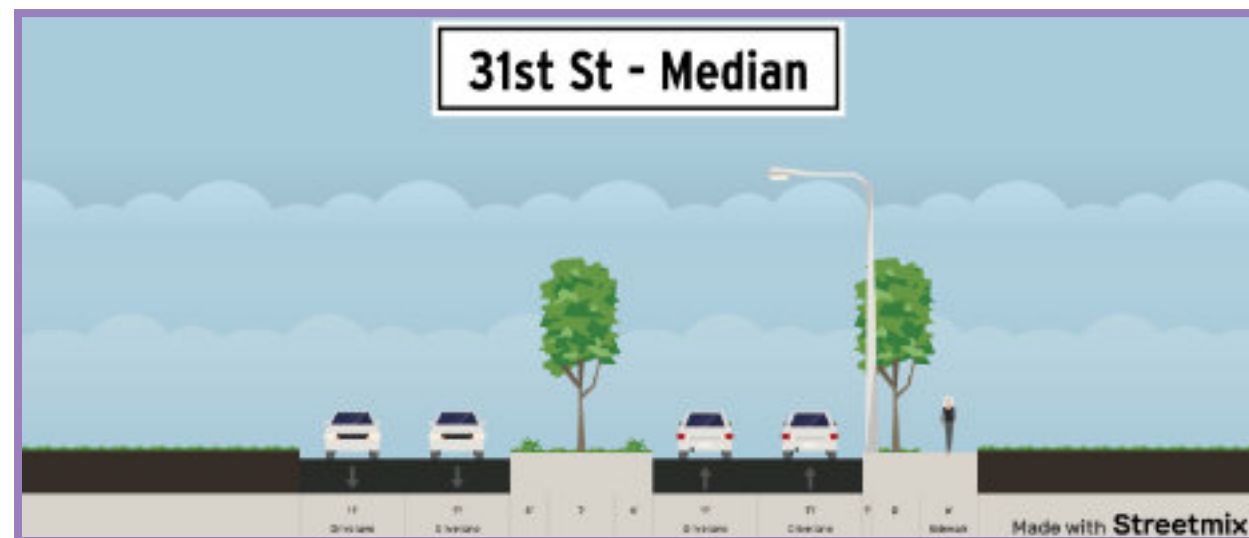
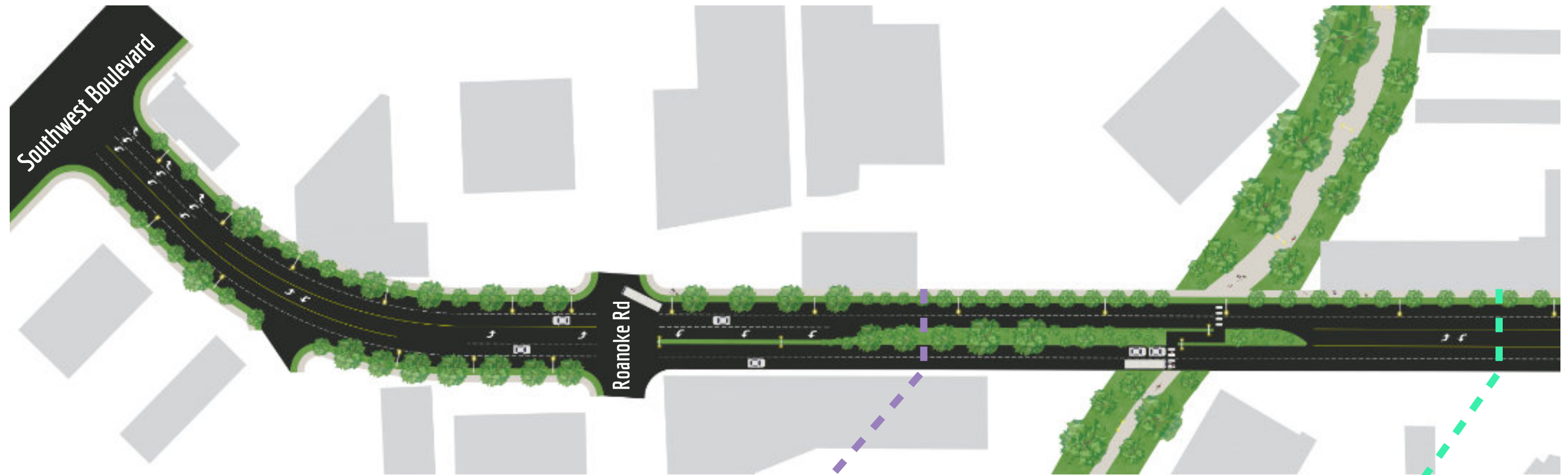
## Community's Street Design Goals:

- Four lanes of traffic
- Expand ROW to include a 15-foot landscaped median that would provide for 12-foot left turn lanes only where needed.
- Inside the expanded ROW, construct a 12-foot sidewalk and 6-foot landscaped tree strip
- Along the sidewalk, create art installations to make speeding downhill feel more unsafe



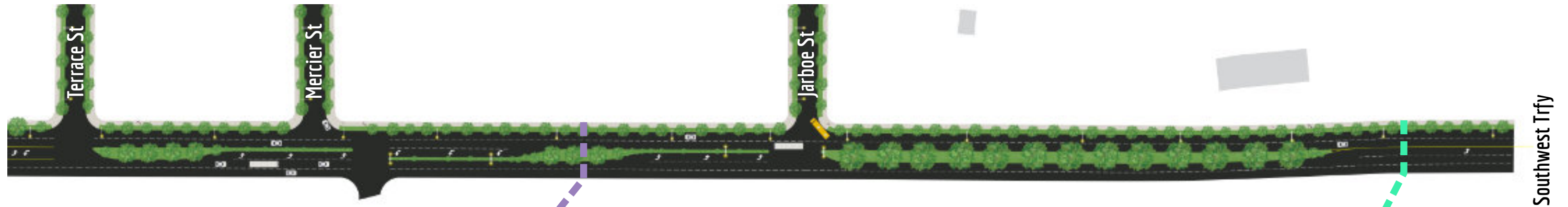


# 31<sup>st</sup> Street - West Half

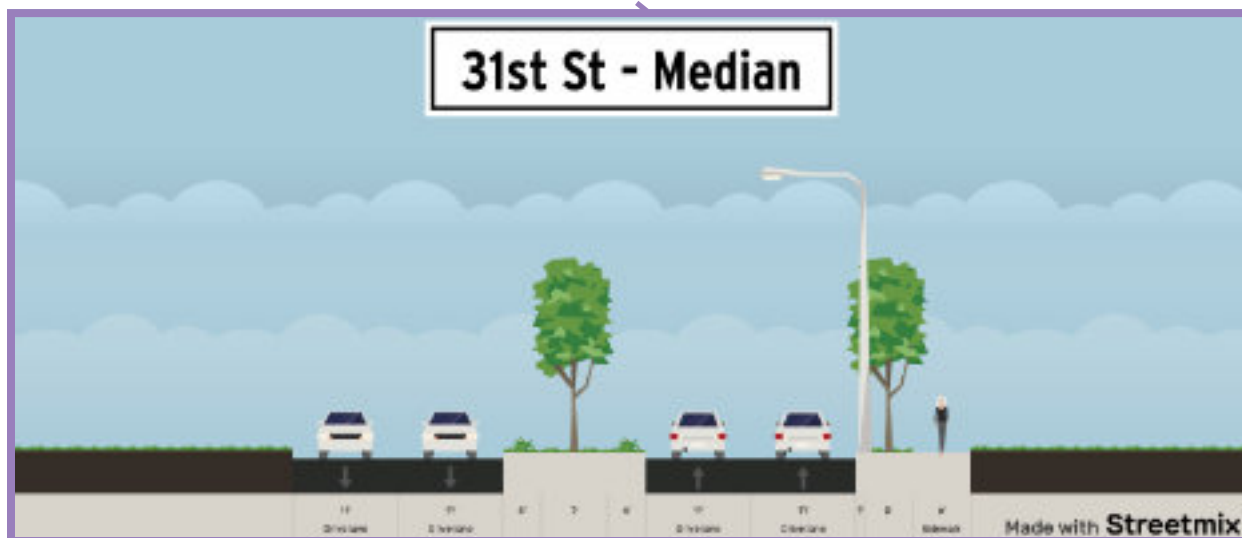




# 31st Street - East Half



31st St - Median

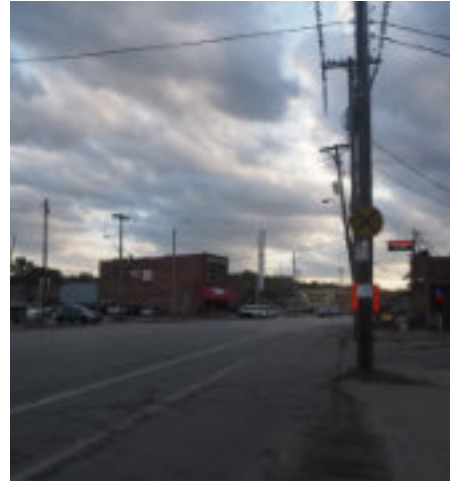


31st St - Turn Lane





# Southwest Boulevard



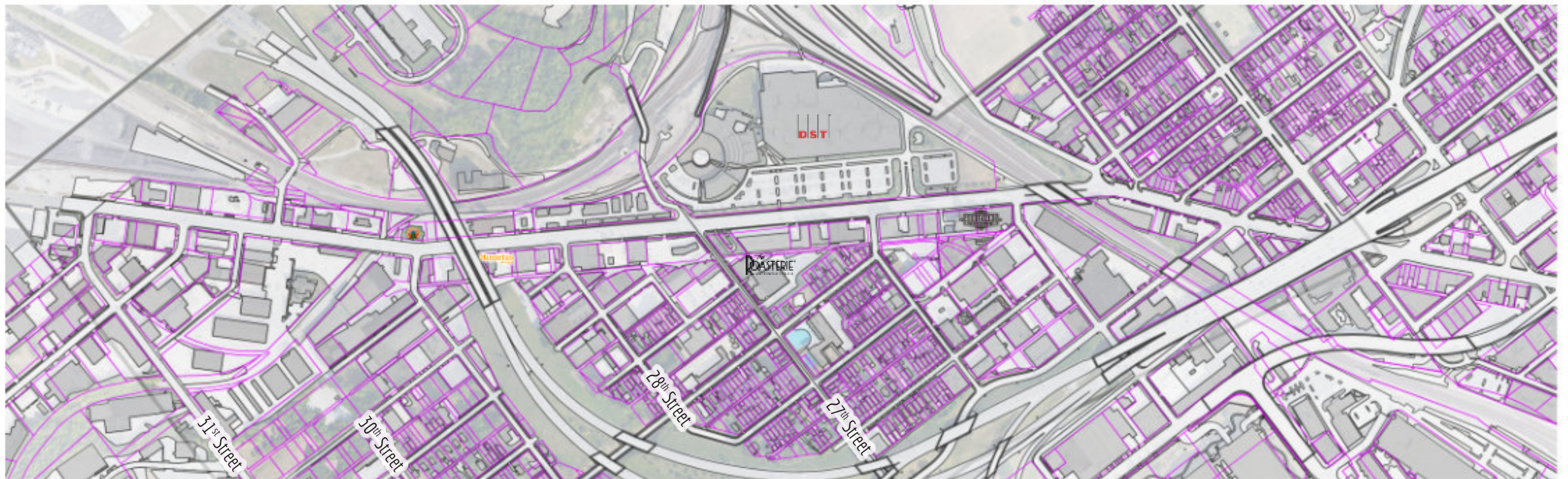
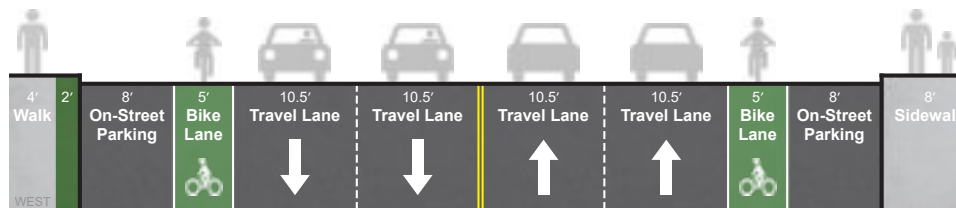
While it often creates the perception of a busy street, traffic data suggests that four lanes are not necessary. A grand vision for this important corridor should improve pedestrian safety and the experience with protected bike lanes, better sidewalks, and land use promoting pedestrian activity.

**Recommendations:** Perform a corridor study to see how public works can best meet the community's goals. Focus on working within the existing 68-foot between the curbs to reduce need to reconstruct curbs and storm inlets.

## Community's Street Design Goals:

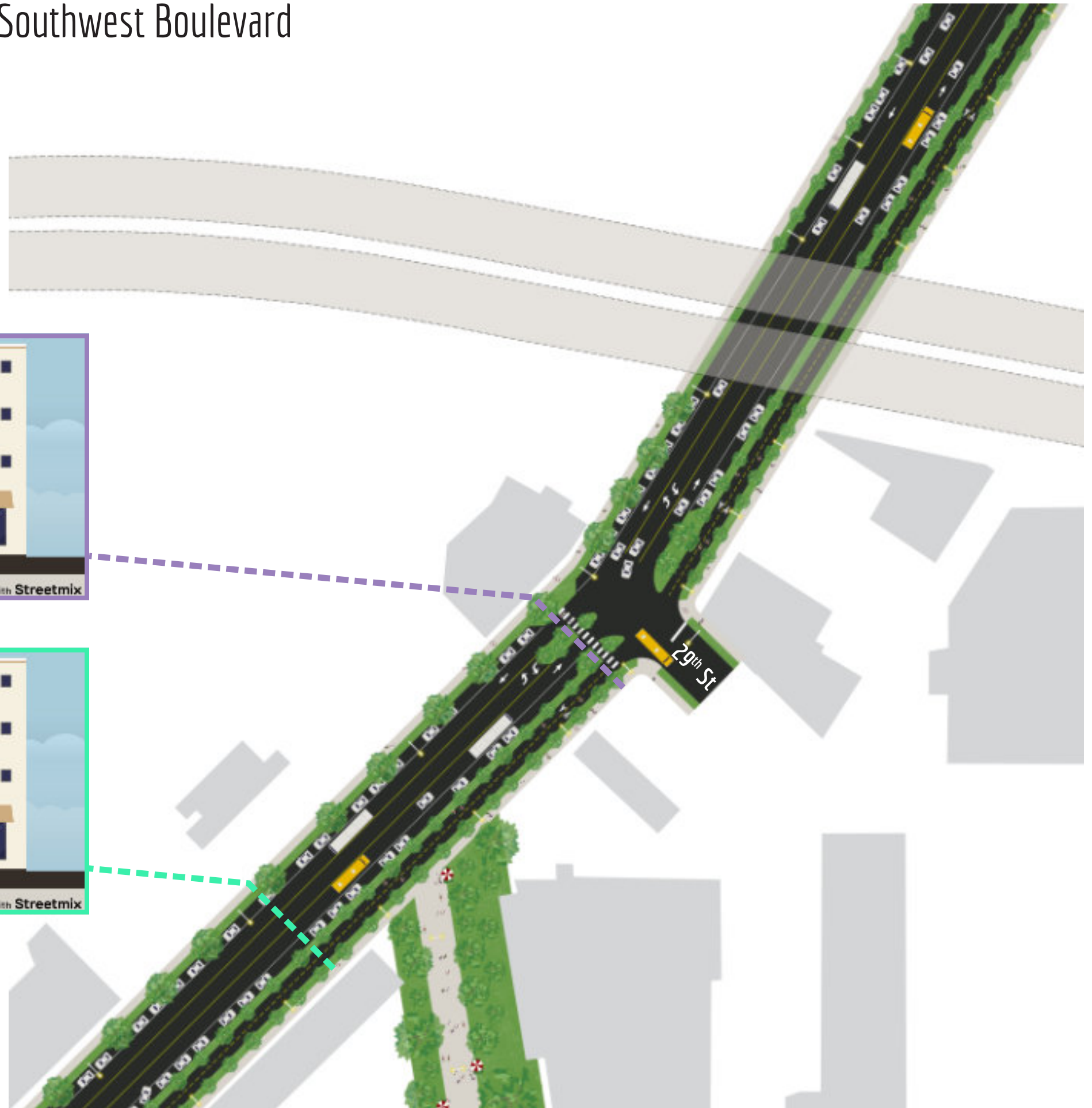
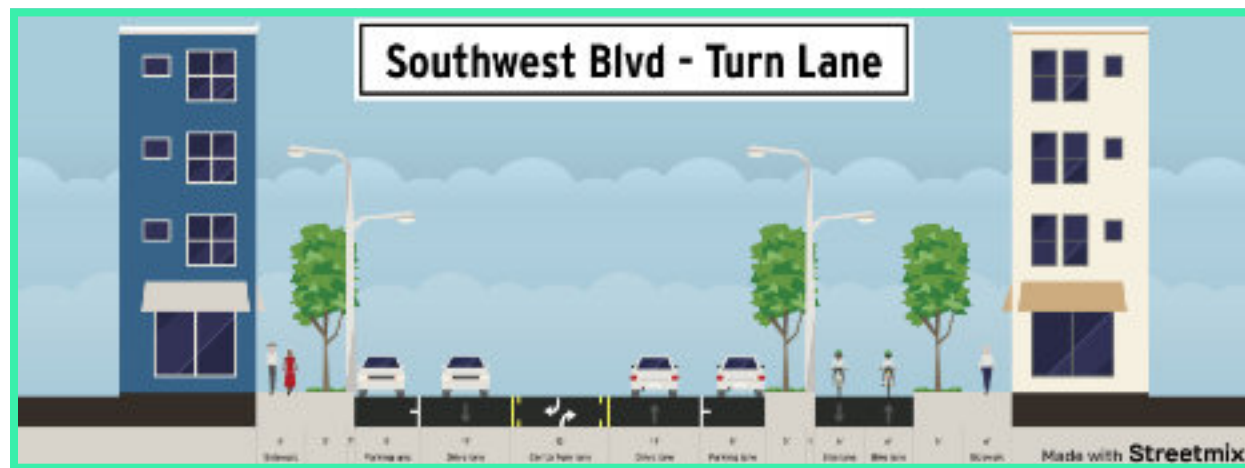
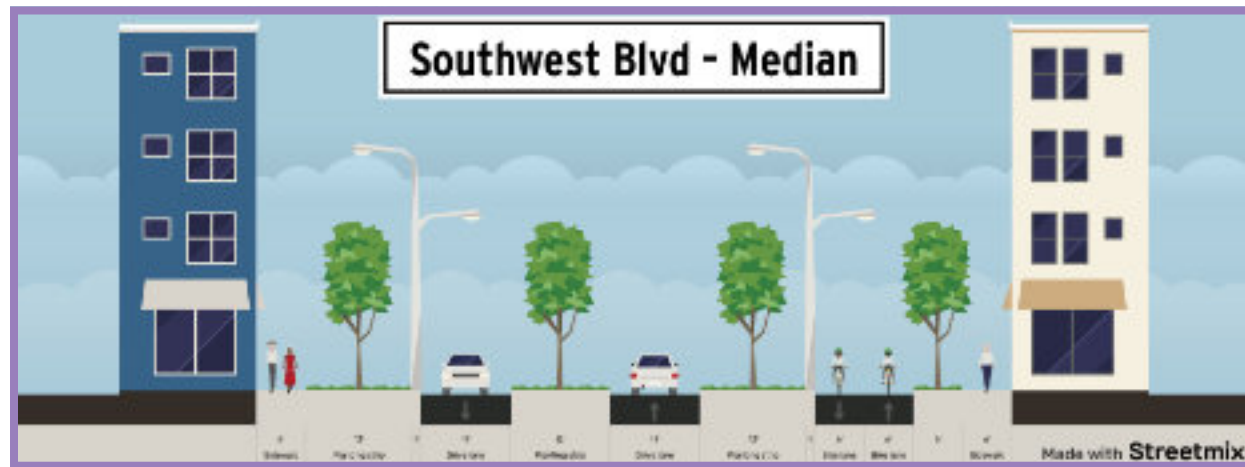
- Two traffic lanes with shared left turn lane
- Landscaped center medians instead of turn lanes where appropriate
- Parallel parking along both sides of the street
- Two-way protected bike lanes along the Southeast side of the street, with a landscaped buffer to divide bike lanes from parallel parking

**Southwest Boulevard [North of 31st Street]**  
Existing Typical Section [Approximate]





# Southwest Boulevard

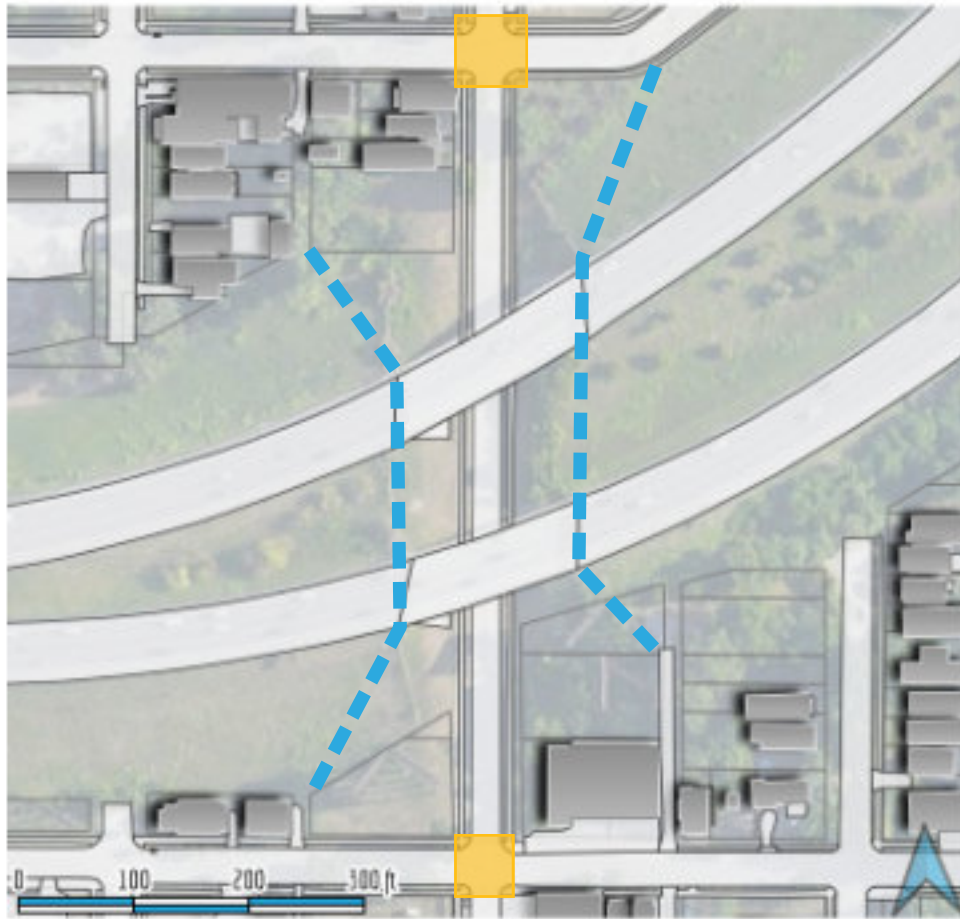




# Jarboe Street







# Jarboe Link

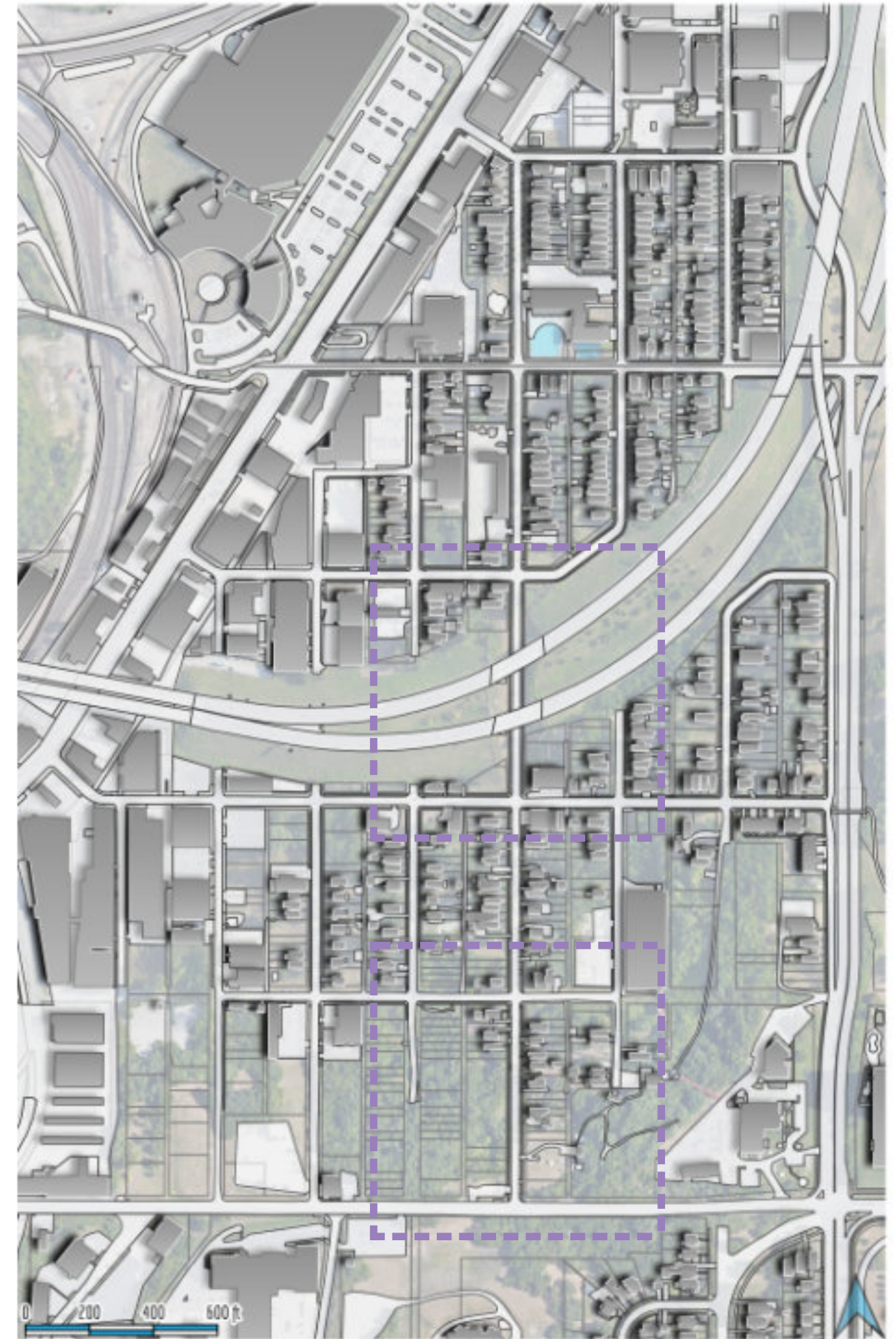
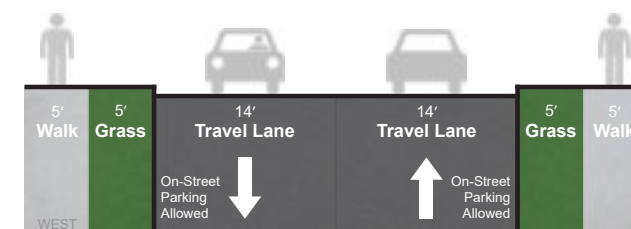
The only street linking the neighborhood across the I-35 barrier should be a vibrant pedestrian corridor. Instead, the block-long uninviting underpass of the interstate severs the continuity. This essentially creates two distinctly separate neighborhoods, with little or no visual connection for pedestrians. The street does have a higher volume of traffic than other streets in the neighborhood due to being the lone link to 31st Street. Much like 31st, it has significant grade, north to south.

**Recommendations:** Perform a corridor study to see how public works can best meet the community's goals. The primary focus on Jarboe Street is to improve the safety of the one street that connects two portions of a single neighborhood divided by the interstate corridor.

## Community's Street Design Goals:

- Widen the I-35 overpass by changing the sloped embankments to vertical
- Create a community art project as part of the I-35 improvements, especially at the street level on Jarboe.
- Traffic Calming measures
- Raised intersections with community artwork
- Improved Lighting

**Jarboe Street [North of 31st Street]**  
Existing Typical Section [Approximate]





# 27th Street

Bisecting the neighborhood from Southwest Boulevard eastward to Broadway, this relatively short roadway is lined with several businesses and a school. Its direct connection to northbound I-35 at 27<sup>th</sup> Street and SW Trafficway regularly causes increases in traffic volume and perhaps speed, especially as part of the morning and evening rush hour traffic. The neighborhood needs the pedestrian experience of 27<sup>th</sup> Street to be like 28<sup>th</sup> Street and 29<sup>th</sup> Street, and less like an on-ramp.

**Recommendations:** Perform a corridor study to see how public works can best meet the community's goals.

## Community's Street Design Goals:

- Extending the curbs at intersection to shorten crossing distance and improve visibility
- Textured paving
- Flashing lights (for school crossing)
- Speed humps

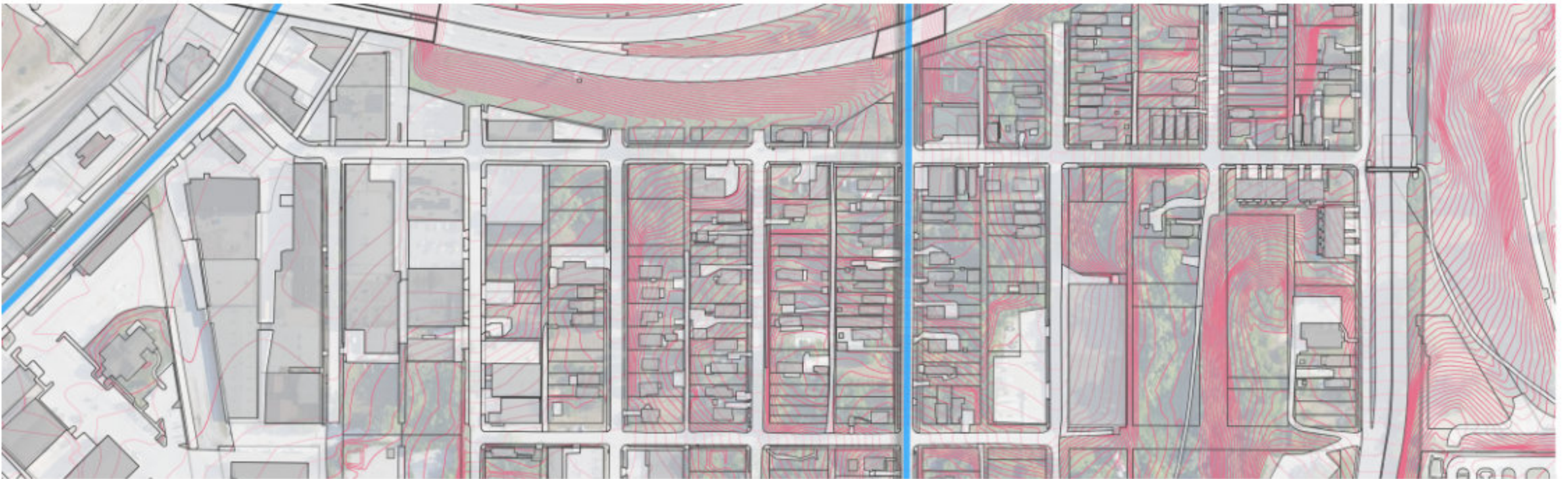
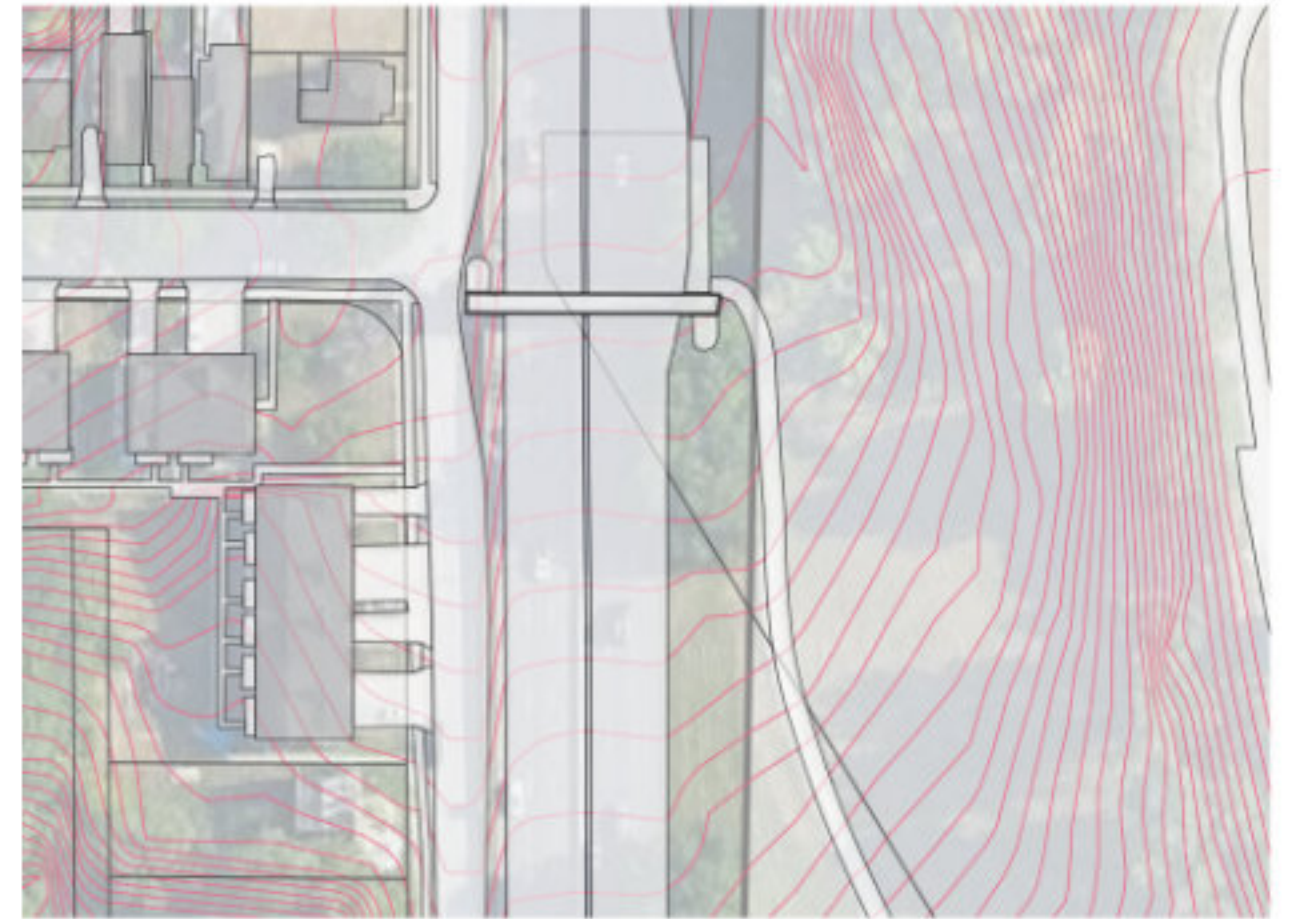




## 29<sup>th</sup> Street



The existing street is a gentle grade from Southwest Boulevard to the pedestrian bridge over Southwest Trafficway. This bridge is inaccessible for bicycles and wheelchairs. The deteriorating concrete is an eyesore, which may help explain why it is infrequently used. Penn Valley Park should be easily accessible to everyone in the neighborhood to make it *feel* close to residents. As the main east/west neighborhood circulator in the neighborhood, the street should draw people up and down the hill from Southwest Boulevard to Penn Valley Park. To achieve that goal, the street needs both ends to be highly visually appealing, with hints of what lies in the destinations at either end.

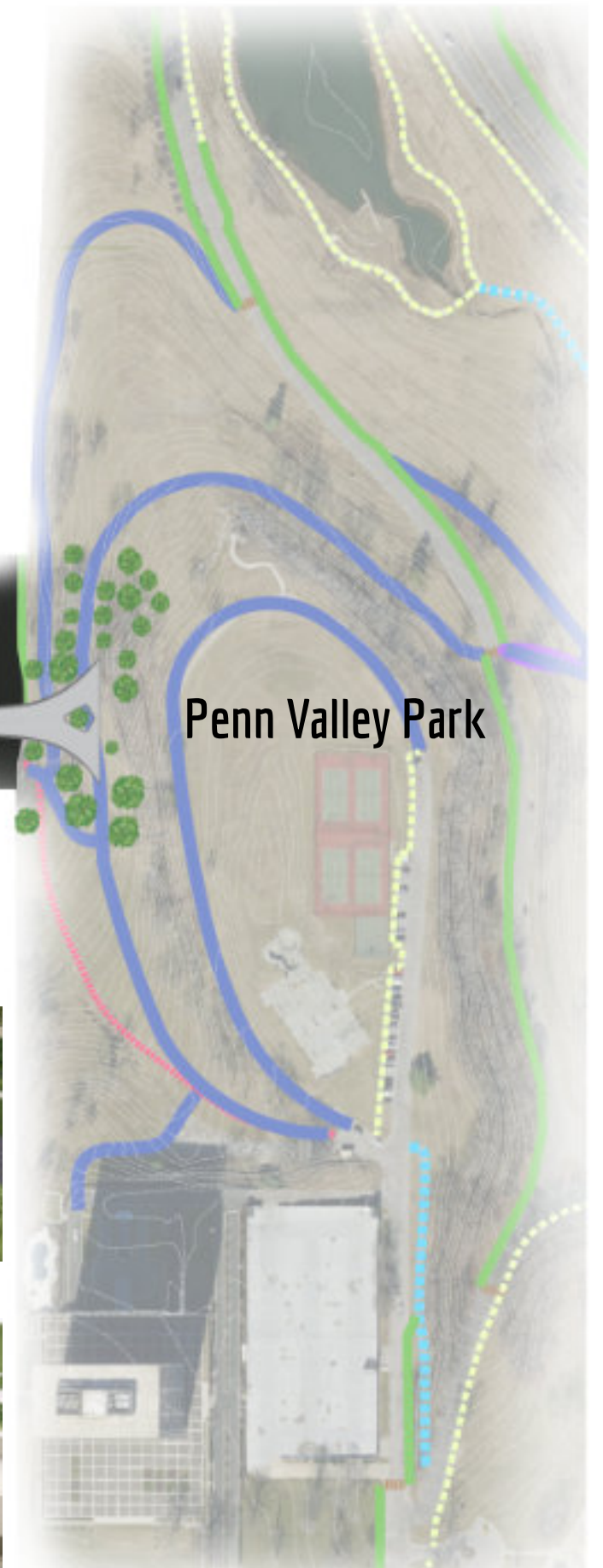
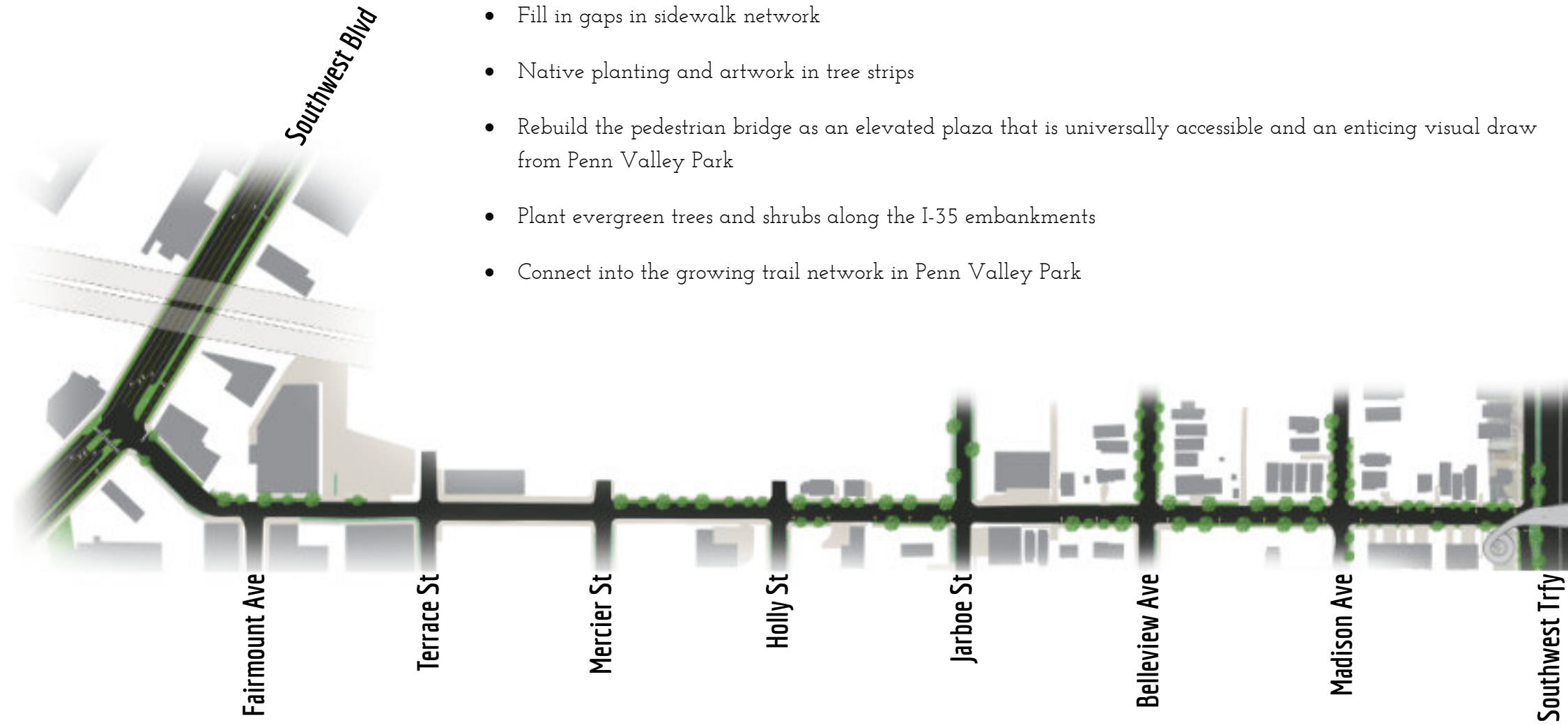




# 29th Street

## Community's Street Design Goals:

- Fill in gaps in sidewalk network
- Native planting and artwork in tree strips
- Rebuild the pedestrian bridge as an elevated plaza that is universally accessible and an enticing visual draw from Penn Valley Park
- Plant evergreen trees and shrubs along the I-35 embankments
- Connect into the growing trail network in Penn Valley Park



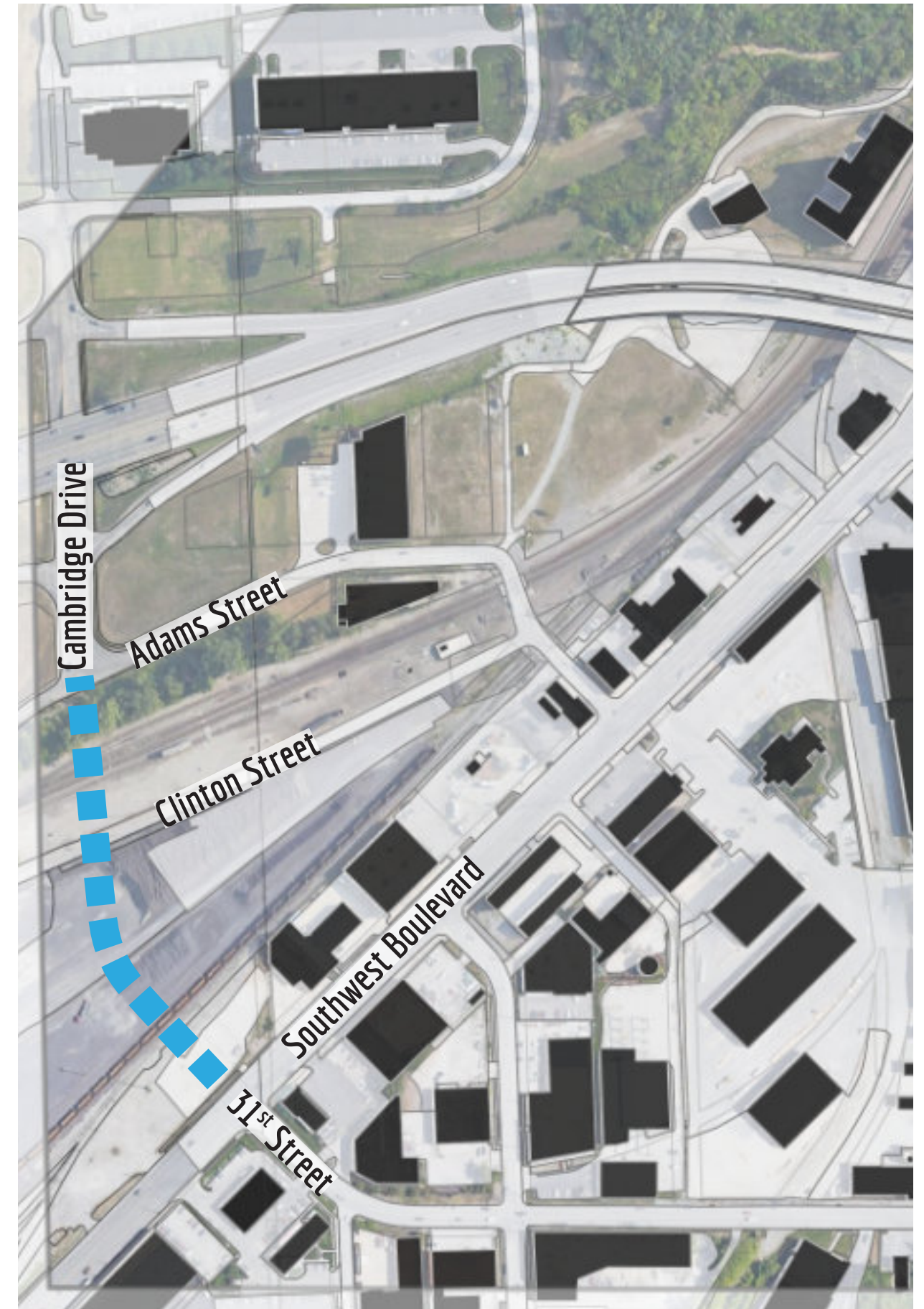


# Cambridge Connector

The existing railroad yard west of Southwest Boulevard is a significant barrier for cars and pedestrians alike. Although I-35's Cambridge Drive exit is extremely close to the 31st St intersection, traffic is routed north to Genesee Street. Along with the visually unappealing gravel yard, the industry-focused arrangement severely impairs development of the western side of Southwest Boulevard south of the interstate.

This plan establishes, very clearly, that the community wants any future modification to the Cambridge Interchange to integrate a connection between 31st Street and Cambridge Drive, at-grade at Southwest Boulevard.

This intersection is the gateway to the city and state; it too must provide the cohesive, universally enjoyable, and healthy pedestrian experience outlined in the Greater Downtown Area Plan.





# Transit Services

The Westside neighborhood is currently lacking in direct transit service and the 2019 RideKC redesign does not incorporate increased service to the area. Transit services are very important to this community as many households have a high need for public transportation including those with older adults, low-income families, or zero-car households.

The rivers, bluffs, freeways, and railroads bordering the area are barriers that cannot be solved by pedestrian connections alone. Easy and reliable access to nearby neighborhoods is vital to the improvement of health outcomes and economic security of residents. Strengthening connections to similar neighboring communities in Johnson and Wyandotte Counties will collectively increase bargaining power and available opportunities for residents.

The Westside neighborhood has much to offer to visitors, and it will only have more to offer in the future. The transit system should recognize the cultural value of this community, take greater steps to connect the area, and encourage the whole city to visit, eat, and shop in the neighborhood.

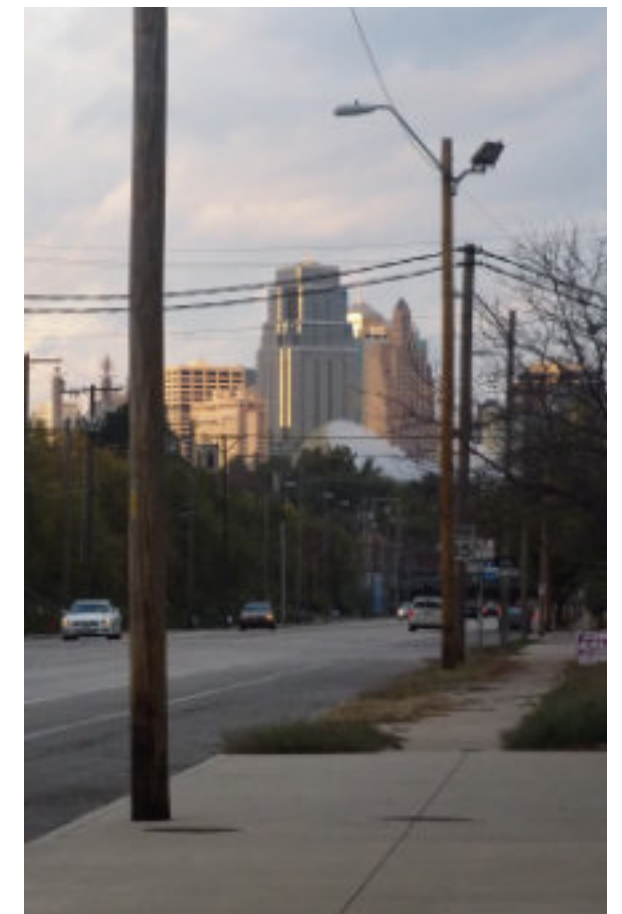
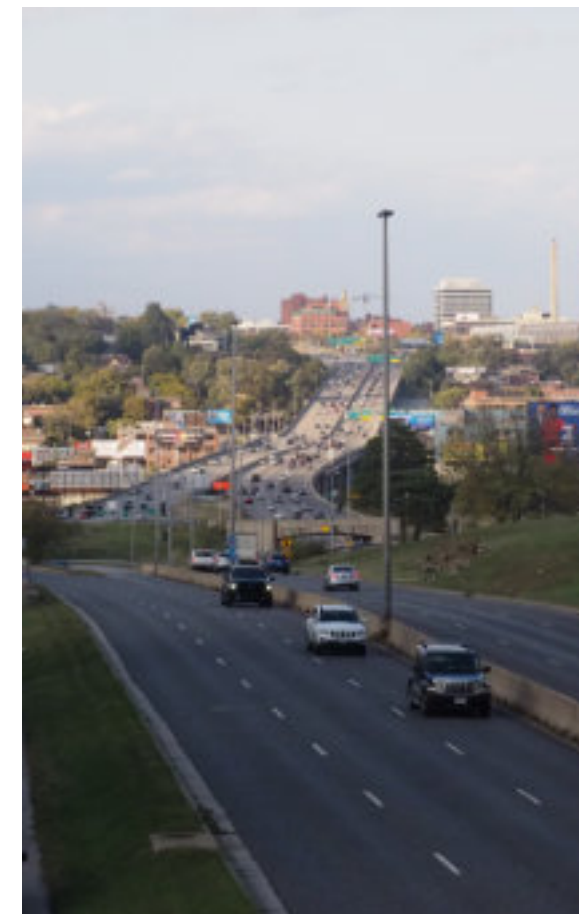
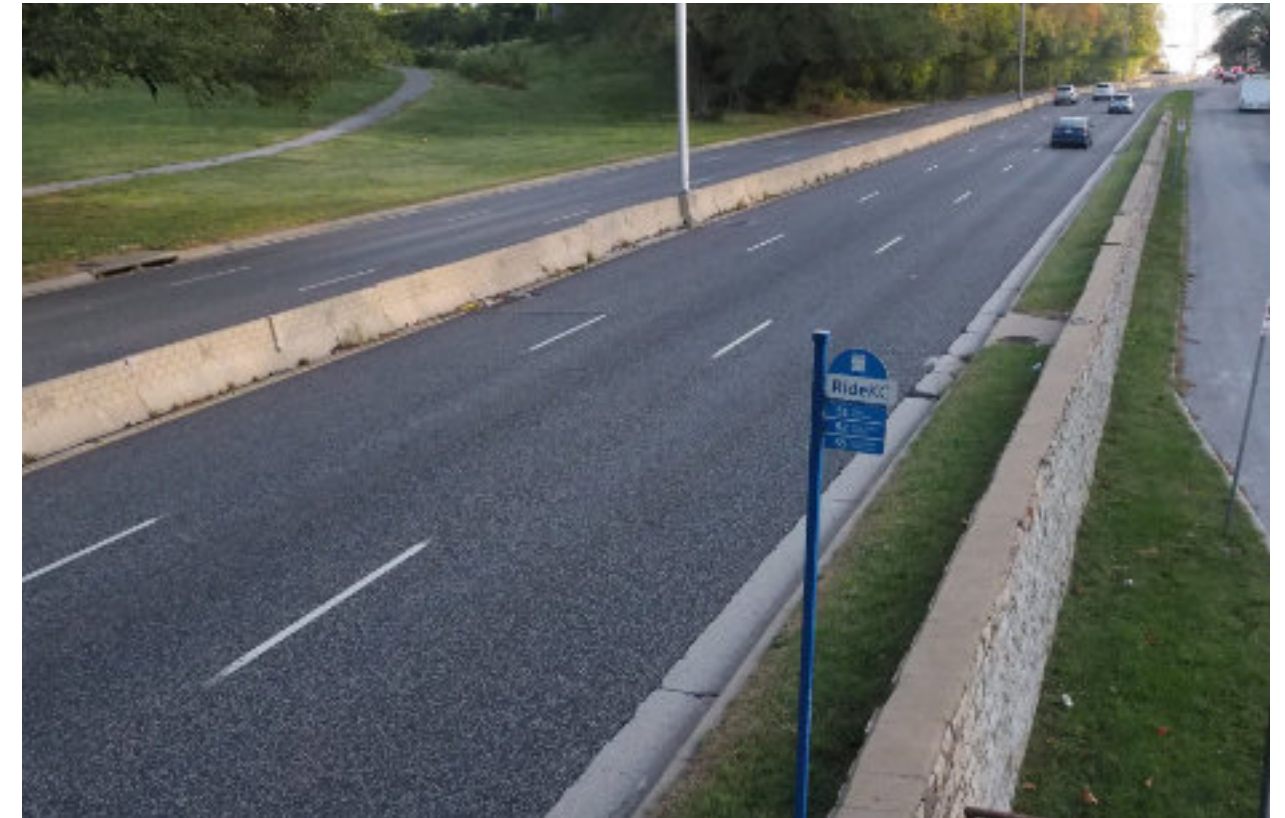
## Recommendations:

### *The 31 Route*

Running east-west across Kansas City's midtown area along 31st Street, the 31 Route connects with all major north-south MAX lines. Current service on this corridor terminates at Metropolitan Community College, just a few blocks from reaching the study area. Extending the service westward the last mile to SW Boulevard would provide this community with connections to the core of the city, broadening available employment opportunities. If elevated to a MAX route, the potential exists to extend service from Southwest Blvd to Van Brunt with frequent fast service.

### *Streetcar/TDD*

Since the Westside area is within the Streetcar TDD, tax is collected, but no adequate access to the operating Streetcar has been provided. This reality should be leveraged to encourage fixed route service improvements along Southwest Boulevard and 31st Street to link the community to the service their tax dollars support.





# Mobility Hub & Mercado

At the bottom of 31st Street at the intersection with Southwest Boulevard, 22 Acres of land are well-positioned for redevelopment. As a future center of activity, the site should include a multimodal mobility hub that links separate bus routes, micro-transit, and future transit options. Linking transit services with commercial areas is highly beneficial.

From this intersection, connections to many culturally and economically diverse communities abound:

- Crossroads/Downtown: east along SW Boulevard
- Rosedale/Merriam: west along SW Boulevard/Merriam Lane
- 39th Street corridor/Coleman Highlands / Volker: south along Roanoke Road
- Midtown: east along 31st Street
- I-35 and all parts of the region: Possible with a properly-designed future Cambridge Interchange





# Mobility Hub & Mercado

The sparsely built industrial area is poised for commercial redevelopment. Building a grocery store on this site would be a significant step in resolving the food desert experienced by the Westside and surrounding communities. In order to complement the neighborhood's cultural assets and create a place unique enough to draw customers from throughout the region, the grocery store should follow the Mercado model. Individual vendors' stalls would provide the selection and unmatched quality, allowing the Mercado to focus on filling in the essentials.

Meant to serve as anchor to a long-term and sustainable commercial site, the Mercado would also incorporate the following important resources:

- Small, inexpensive storefronts for incubation of developing neighborhood businesses
- Smaller local business kiosks
- Food Truck Court
- Open (Green) Space for gathering
- Seasonal pop-up spaces for events





# Transit Services

## **Recommendation:**

Build a 30,000 to 60,000 square foot store filled with local business to provide all of the same options available at a big box grocery store. Local vendors would include bakers, farmers, butchers, and neighborhood-grown produce. All would work from individual kiosks with individual points of sale.

Create a marketplace that is truly of its community. Start small. Over time, the site will attract more businesses creating a naturally sustainable business model. We recommend the most important next-step towards implementation of this Westside Plan is to embark on an economic feasibility study of the Mercado coupled with site development concept studies.



## **Mobility Hub, Phase One**

- Place bus infrastructure
- Start streetscape improvements and trail connections
- Utilize existing retail space
- Build food truck infrastructure
- Begin neighborhood improvements like housing infill



## **Mobility Hub, Phase Two**

- Build Mercado space
- Build pop-up commercial
- Surface parking
- Expand trail connections



## **Mobility Hub, Phase Three**

- Expand higher density commercial development
- Build small incubator spaces
- Build up west side of Southwest Boulevard
- Develop connections between 31st and Cambridge



# Community Connections & Enhancements

## Walkability/Mobility

The pedestrian infrastructure is in a state of disrepair and there are significant gaps in the network. The sidewalks, where they exist, are broken, heaved, and overgrown with shrubs and trees. Mobility issues to address:

- Sidewalk replacement, repair, and infill
- Develop alleyways as an appealing pedestrian circulation system within the community
- Improved lighting
- Landscaping and Green Infrastructure
- Mobility lanes on major thoroughfares
- Bicycle and scooter parking
- Improved connection to Penn Valley Park

## Interconnected Greenspaces

If the extensive resource of open land in the community was leveraged, a neighborhood improvement and urban farming operation could be created. These pieces of land could be stitched together with the disused alleys that exist in this neighborhood.

This program would provide benefit to the community by:

- Enhancing the vacant properties
- Providing fresh produce to sell in the community Mercado
- Making use of stormwater runoff to mitigate flooding along Turkey Creek
- Demonstrating efficacy of emerging regenerative agriculture best-practices





# Community Connections & Enhancements

## Trail Connections

The existing trail network plans provide off-road trails throughout Penn Valley Park, with new trails planned along the Kansas River and Turkey Creek. Mountain bike trails were recently constructed in Mount Marty Park and around Roanoke Park. Bike lane striping exists along Southwest Boulevard, and is planned to expand to State Line Road, Rainbow Boulevard, and Cesar Chavez. While these networks are relatively close to the neighborhood, Southwest Boulevard currently does not create a usable connection for most residents. Significant trail networks in Johnson County are within biking distance of the neighborhood, but the automobile-centric routes are unclear and unsafe for pedestrians and bicyclists.

Currently under construction, the Rock Island Trail six miles to the east would allow bicycle access all the way to St. Louis via the Katy Trail if 31st and /or Linwood Boulevard were made bicycle-friendly all the way to the stadiums. ***This longer-term connection would be the most significant move that could be made to reach the GDAP's goal of platinum rating from the League of American Bicyclists.*** Beyond that rating, a reliable and robust east-west connection would help repair the city's great east-west economic division that has been created over the last century.

## Greystone Hill - KCK Trails

Connecting across Southwest Boulevard to Greystone Hill, the Westside neighborhood can link to trails planned along the bluffs that will provide access into Shawnee Heights and KCK.

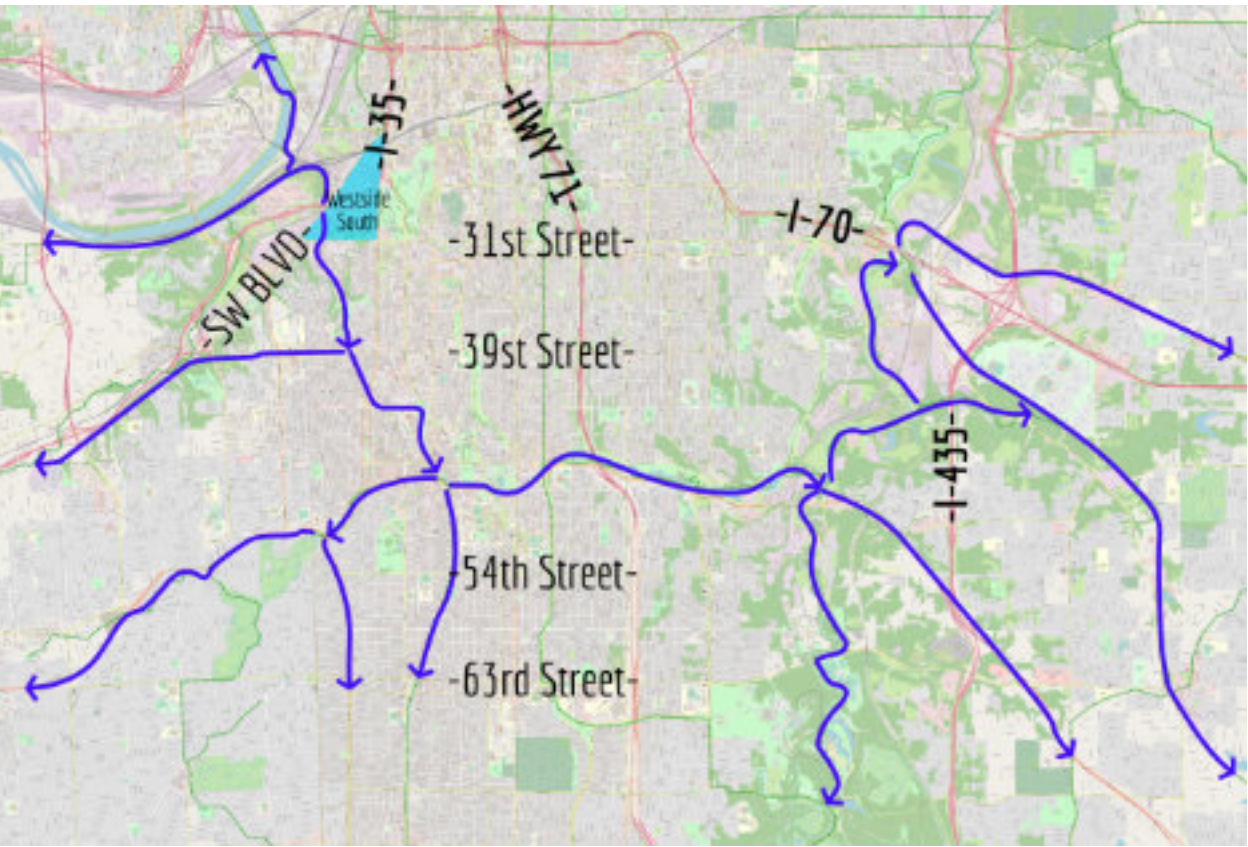
## Turkey Creek Trails

A redesigned Southwest Boulevard that is accessible and enjoyable for pedestrians and cyclists could provide community access to Mount Marty Park and Rosedale Park, and link into the extensive Streamway Park networks along Turkey Creek and Mill Creek. Neighborhoods in Merriam, Shawnee, and Lenexa can all be accessed from these networks.

## Disused Railroad Right-of-Way

Extending south up the valley towards Roanoke Park are the remnants of a long disused industrial spur that served industries along the hillside, and once connected for a brief time to the "Country Club Line" that terminated in a railyard where the Sunfresh in Westport is located. With this trailhead, connections can be made to:

- Coleman Highlands, Volker and Roanoke Neighborhoods
- 39th Street commercial/retail corridor
- Rosedale neighborhood and more interconnected greenspace west of State Line
- Westport
- Trail connections to the south including the east-west Brush Creek trails



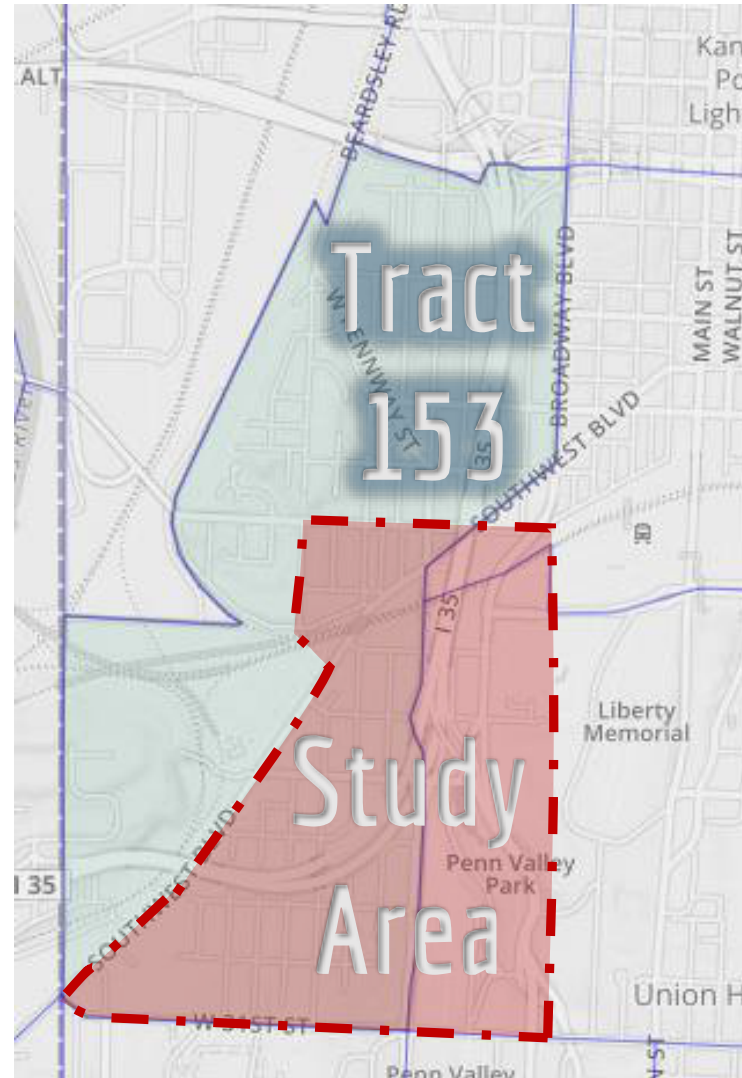


# Community Investment in Housing Stock

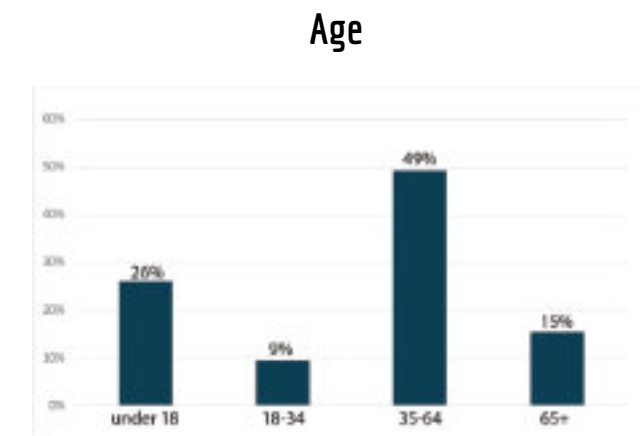
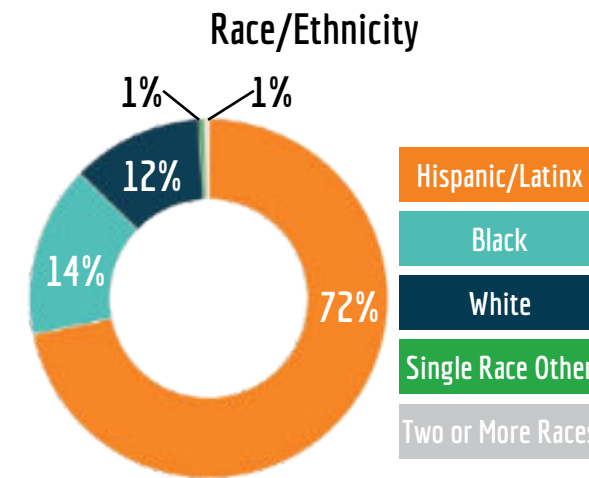
The neighborhood is isolated from the surrounding urban canvas and is in a state of decline. The community would benefit from programs designed to improve housing, connectivity to surrounding communities, and improve the pedestrian infrastructure for walkability.

## Census

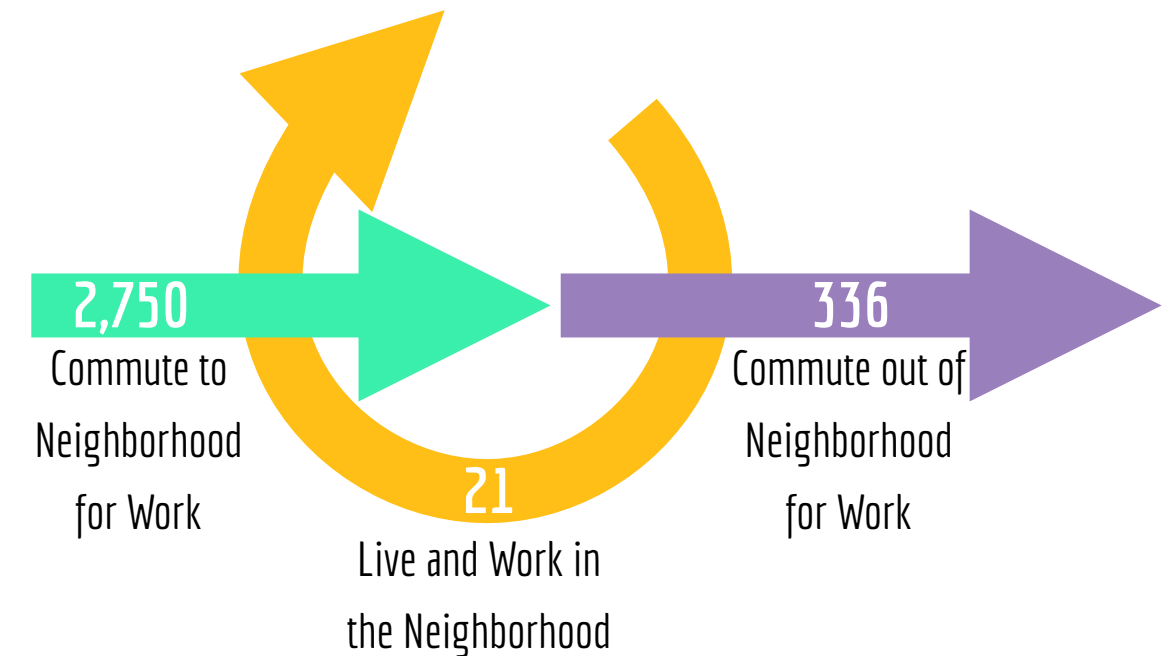
The study area is part of Census tract 153. In this tract; per capita income is \$22,007, median household income is \$30,384, and 21.2% of persons in the community are below the poverty line. This compares to the Jackson County stats of; \$28,965 per capita, \$50,652 median, and 15.9% poverty line.



## Neighborhood Demographics South of 25<sup>th</sup> Street



## Jobs - Inflow/Outflow



- 3107 Jobs
- 89% of workers commute to the neighborhood
- <1% live and work in the study area



# Community Investment in Housing Stock

## Housing and Land Trust

Gentrification is an issue in the community. In the northern portion of the Westside neighborhood (outside the scope of this plan) evidence abounds of teardown properties where new modern and expensive homes have been constructed in place of the original housing stock. The Westside seeks to develop strategies that both mirror those in GDAP and set new precedents for creative development and housing preservation in an urban residential community.

### Housing Needs:

- Zoning regulations: Create an overlay district for the neighborhood that focuses more on the type of housing (single-family) rather than lot area ratios.
- Limit new construction to meet the massing context of existing adjacent housing to discourage teardowns and lot combinations.
- Multifamily housing integrated into the neighborhood with 2-3 story 6-unit apartment block that fit on a single-family lot, creating organic densities in the middle of single-family housing.

### Development Partnership:

- Formation of a Land Trust developer for the public good to acquire vacant properties and empty lots to hold and incrementally develop as part of a homeownership program for the betterment of the neighborhood.
- Temporarily convert properties in the Land Trust to urban farms and small community greenspaces.

### Homeowner Resources:

- Strategies to provide a pathway to home ownership for those at 80% median income and above, including financial education so these first-time homeowners can prepare for transfer of ownership to children.
- Scenarios to provide financial resources and home repair training to help those below the 80% median income level repair and maintain their existing homes.
- Formation of an equipment/tool depot where community homeowners will have access to "check out" a wide range of heavy equipment and power tools to reduce cost of improvements and give an economic advantage to non-profit projects that will benefit residents.
- Create a position for a community "Construction Manager" to help residents plan and execute their projects.



## Neighborhood Growth

Housing density increases that are sensible and organic are key. As the sidewalk network is restored, as new transit routes are added, and as local shopping options are expanded, it is expected that residents will walk, bike, or use public transit for errands rather than use a car. So, even though the area will have more residents, automobile traffic is not expected to increase.

Furthermore, retaining some open space in the neighborhood has had unexpected benefits recently. The surplus of vacant lots has allowed children in the neighborhood to continue to play safely as parks are closed to prevent virus spread. As the neighborhood grows back, those open spaces will provide a natural buffer for residents, minimizing the local impact of future pandemics.



# Community Preservation

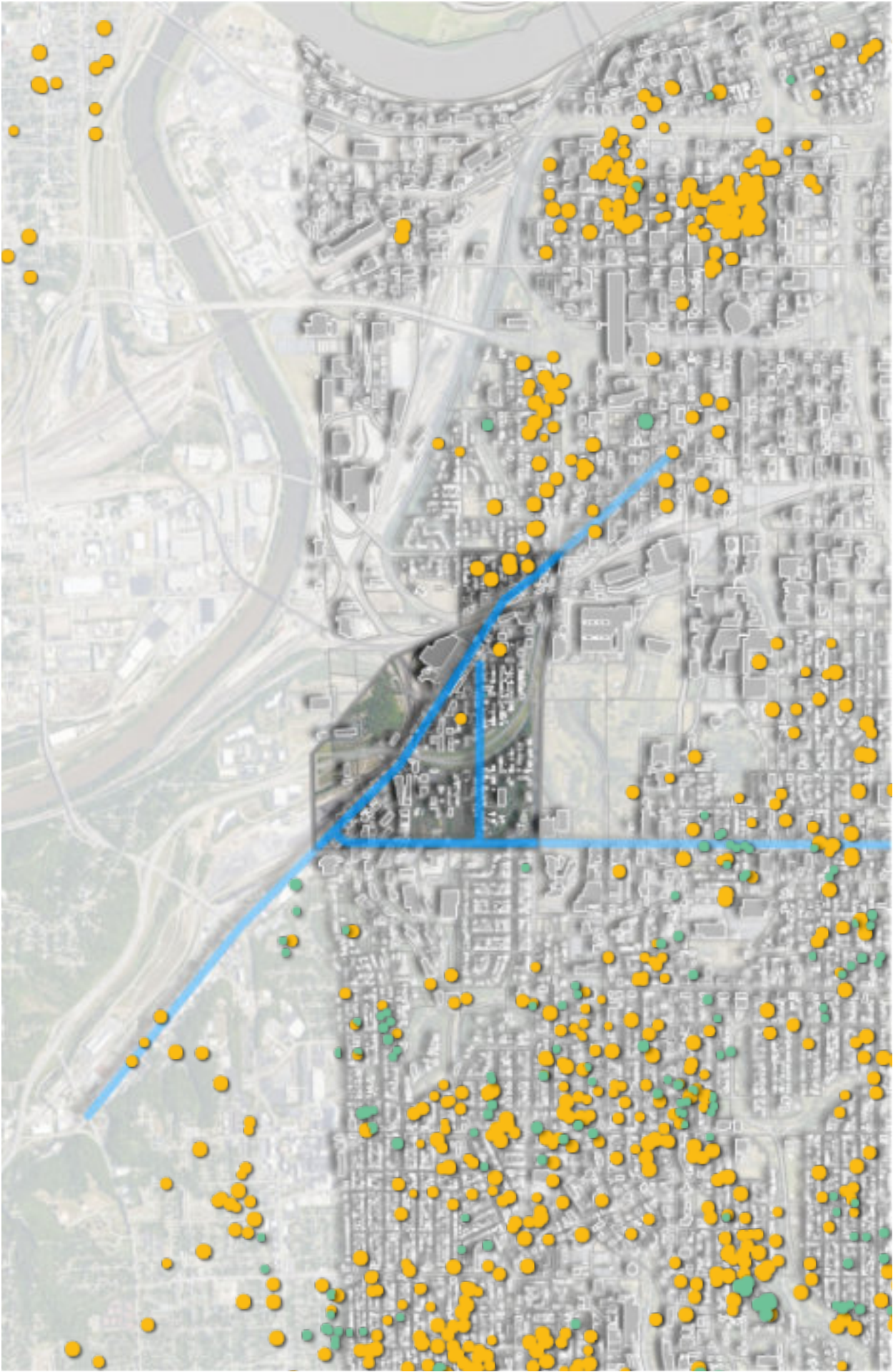
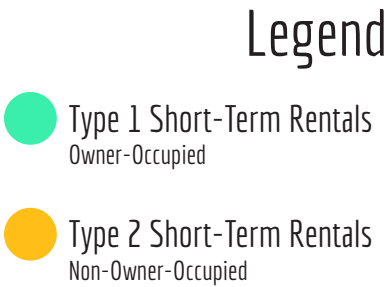
## Short Term Rentals

Websites like Airbnb and VRBO have allowed travelers greater access into many communities, but they have begun to change the nature of neighborhoods. Kansas City, Missouri issued regulations on short-term rentals in 2018. Noncompliance has starved the program's ability to enforce the regulation. Registration for short term rental properties in Kansas City breaks into two categories: owner-occupied (Type 1) and non-owner occupied (Type 2). The Type 2 STR category has a slightly higher amount of regulations, but neither type is particularly difficult or expensive to set up.

The Westside's central location and vibrant culture make it an attractive place to visit. This also makes the neighborhood an attractive option for investors looking to expand their STR portfolio. The perverse incentives that fuel gentrification are amplified in scenarios like this, and similar communities in New Orleans and other cultural centers are being hollowed out into rental property ghost towns. The investor cash that takes over these neighborhoods tends to inflate property values and standard rental rates beyond the area directly affected.

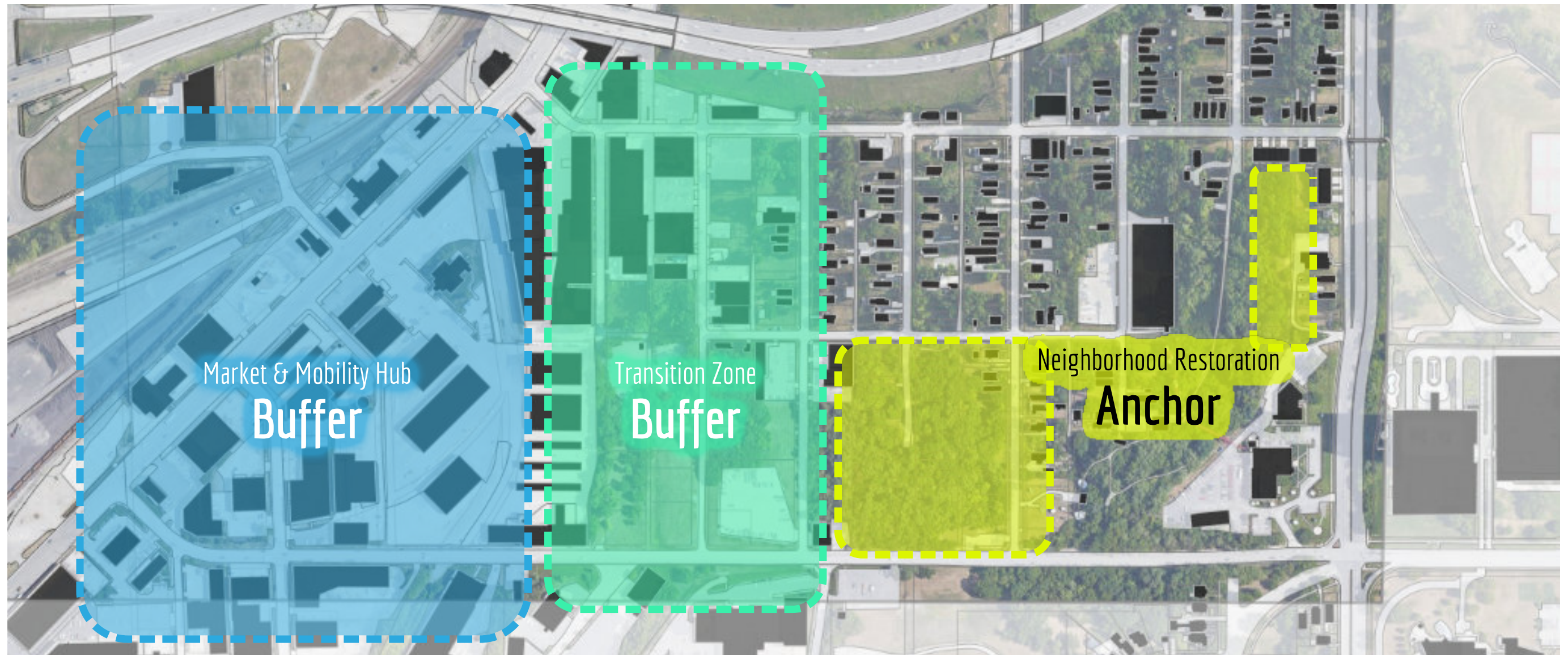
Thankfully, few of the neighborhood properties have been converted to Short Term Rentals, so there is still time for an intervention to save the neighborhood culture. While there is no silver bullet solution for the problem, a quick and easy reign on the trend would be to ban Type 2 (non owner-occupied) Short Term Rentals within the study boundary.

The city should consider applying the same regulation to other historically minority neighborhoods on the east and west sides of downtown Kansas City.





## Review of Overall Scheme





# I-35 Planning

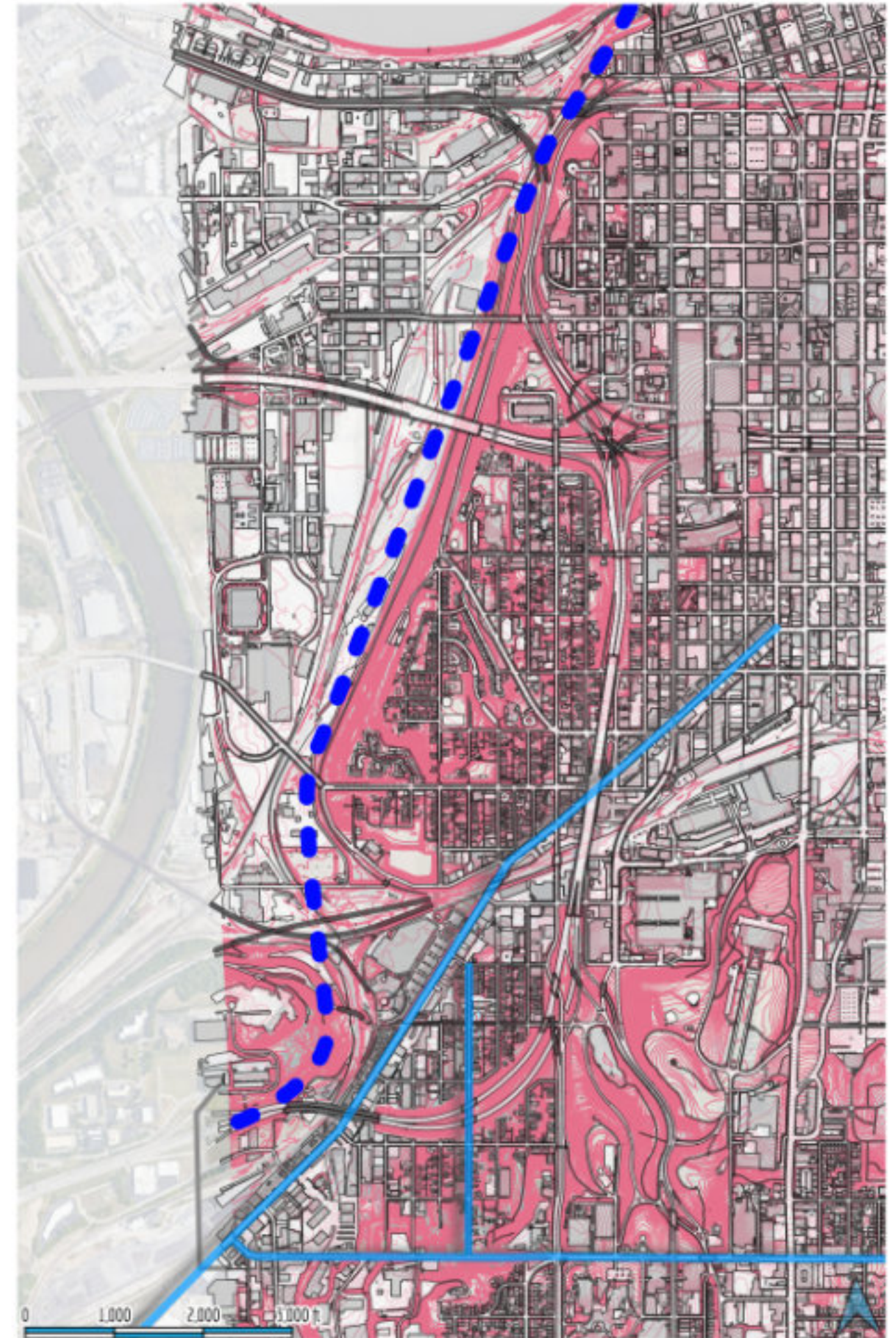
The highway alignment has crippled the community by cutting off the south half from the north half, with only Jarboe serving as a link between the two. It is time for this community to be the beneficiary of social justice and reverse the decades of slow decline that has resulted from the decision to plow the interstate through the middle of this community.

## Long-Term Planning - Relocate I-35

The City of Kansas City and Mid-America Regional Council should advocate for the relocation of I-35 from Cambridge Circle North to the Buck O'Neil bridge.

The 2050 Long Range Transportation Plan adopted by MoDOT does not mention the I-35 relocation in their project, "I-35/I-670/US-71 Downtown Loop Improvements", though the idea has been raised before. MoDOT states that this project is set for the 2030 decade. Among the listed project goals are things like safety improvements, congestion reduction, and bottleneck removal.

The community wants the case to be made for the capacity improvements and bottleneck eliminations that could be achieved only by relocating I-35 to run along the west bluffs between Cambridge and the Buck O'Neil Bridge. There is little sense in sinking more money into this thoroughly flawed stretch of highway without seriously considering residents' preferred alternatives.





# I-35 Planning

While moving the interstate would immeasurably benefit the community, the realities of institutional inertia mean that such a drastic change would take decades to implement, at best. In order to serve the community's needs within our lifetime and bring the GDAP-recommended critical mass of activity to the area, lower-effort intermediate interventions should be studied.

## Short-Term Planning - Extend Viaduct

If the I-35 viaduct was extended from Southwest Boulevard east to Jarboe, a unique urban green space or community garden could be created underneath. Removal of this barrier would also broaden community access between the neighborhood fragments. This change is important to the health of the neighborhood and the vibrancy of the commercial corridor.

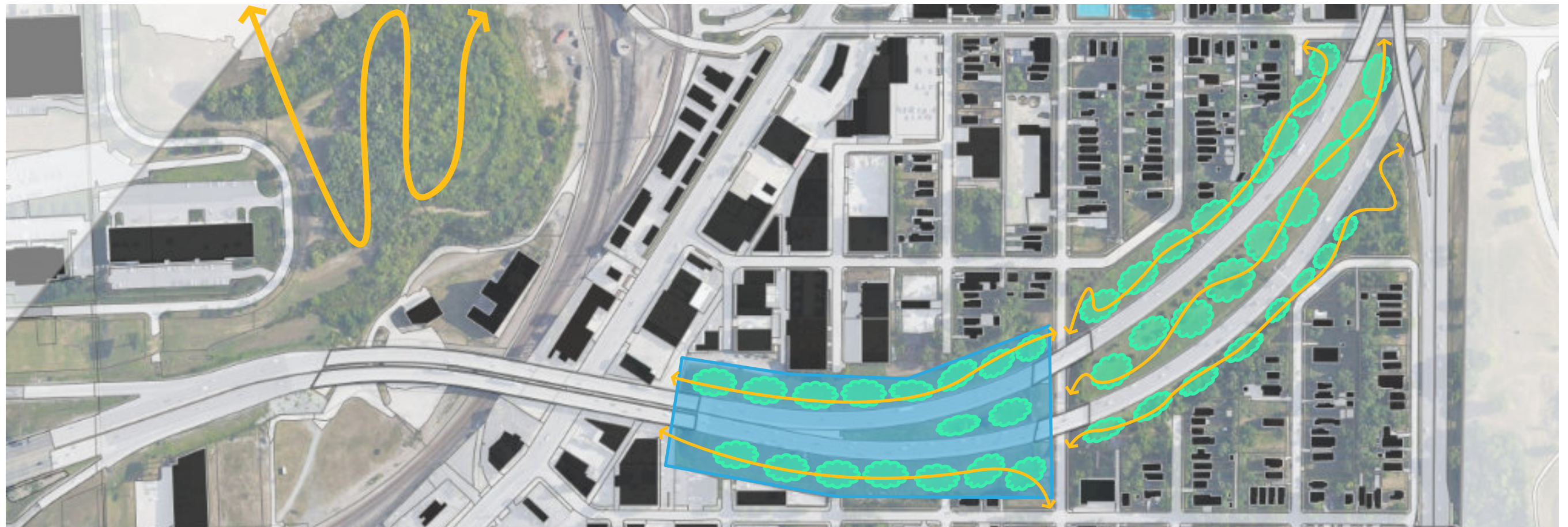
## Immediate Planning - I-35 Embankment Planting

In Kansas, I-35 and I-70 have been heavily planted with native grasses and wildflowers over the last decade. This sort of planting should be brought to the largely unmanaged I-35 embankments in the neighborhood. Evergreen trees and shrubs should also be planted to contain the noise, light, and air pollution generated by vehicles on the highway. These improved embankments would then be usable by the community for expansion of the trail network.

## Greystone Hill

The hillside east of the railroad and north of I-35 presents a unique opportunity to create a landmark icon. Like the "Hollywood" sign in LA, this icon could bring a highly visual medium for the purpose of celebrating this neighborhood and all the others that surround the hill. This area should be better-utilized in the future.

The panoramic view from Greystone presents an opportunity for a historic interpretive trail that could wind along the hilltop highlighting points of interest from KCK, to Downtown, Crossroads, and the historic development of the Westside community and the Turkey creek valley to the southwest.





# Green Infrastructure

Since the US Department of Agriculture is moving from Washington D.C. to Kansas City, the project should also seek to take part in programs offered by the new Office of Urban Agriculture and Innovative Production. This office seeks to bring practices like Aquaponics, Natural Farming, and Community Composting to economically distressed communities.

To that end, a case should be made for the use of soil science to improve the water-retention of all of the soil in the study area. Stormwater is expensive when the only tools are pipes and pumps, but Natural Farming interventions can be made with only sweat equity invested.

Beyond holding capacity, the conversion of the neighborhood's sunbaked clay to a living soil would bring far more home-grown food and ethnobotanicals to a neighborhood in need.

Natural Farming dictates a basic method of conversion, which is oversimplified here:

1. Collect indigenous microorganisms from healthy untouched native soils in the region
2. Plant alleys and vacant lots with dynamic accumulator plants like Borage, Yarrow, and Nettle
3. Regularly harvest that plant matter, and ferment it with the indigenous microorganisms
4. Dilute that fermented nutrient and apply broadly to leaves and soil
5. Use permaculture to create food forests and community gardens
6. Plant deep-rooted native grasses once the soil biology is healthy enough to support them
7. Continue applying fermented nutrients, tailoring inputs to remediate observed deficiencies

This process has been shown to improve and soften soil within a few years. Since this is how farming was done everywhere before chemical fertilizers and industrial farming became popular, little equipment is required. The stormwater absorption aspect has not been formally demonstrated yet in a pilot project, but the existing science suggests that it would be at the very least somewhat effective. Each block could try a slightly different approach, and the data collected will suggest which approach works best here. This data would then be available for neighboring communities to use in their own soil regeneration programs.



# Green Infrastructure

To have the best chance of success, a variance from the city's 10" grass rule will be necessary in the area. This rule does not have a place in the environments that the GDAP seeks to create.

Short grass serves to reinforce class systems from a century ago, and the encouragement of short grass contributes to urban heating, fertilizer runoff, flash flooding, topsoil loss, and many other problems. The grass grown here should be the grass that wants to grow here, the grass that the soil needs.

Soil Regeneration - Phase 1: Alleys





# Green Infrastructure

There are many educational opportunities at all levels available with a project of this scale. Schoolchildren could be introduced to microbes and the soil food web, while graduate students could measure the efficacy of myco-remediation of the more heavily contaminated portions of the site.

Soil Regeneration - Phase 2: Infill

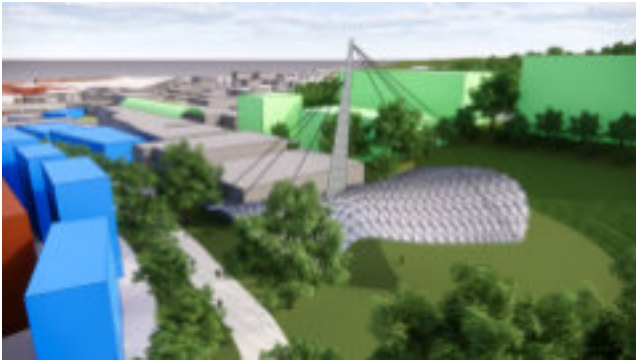
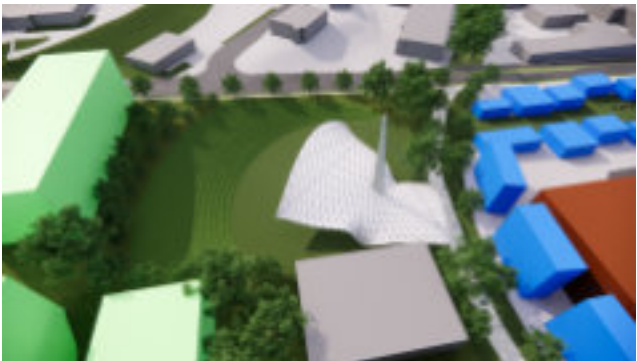
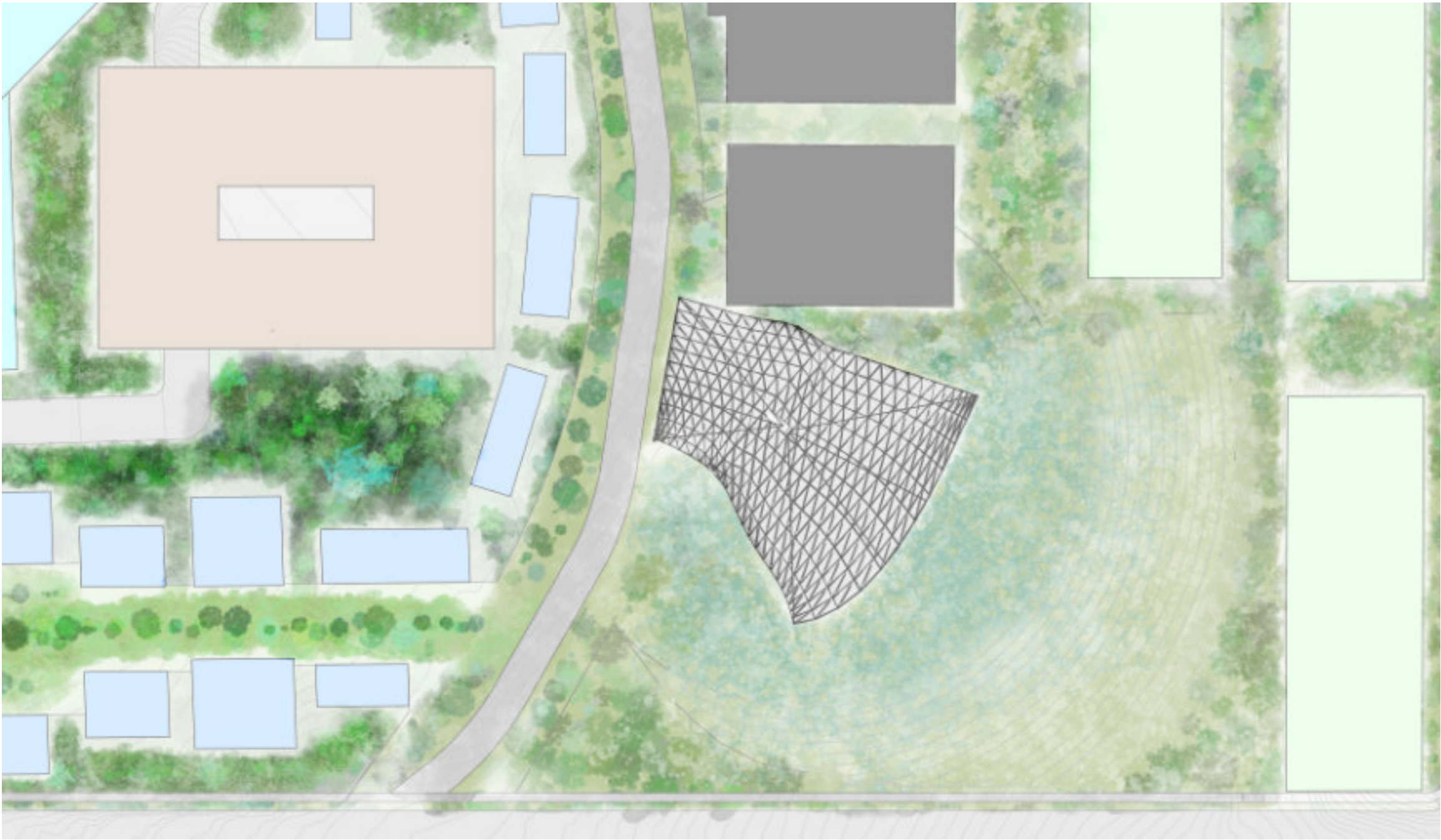
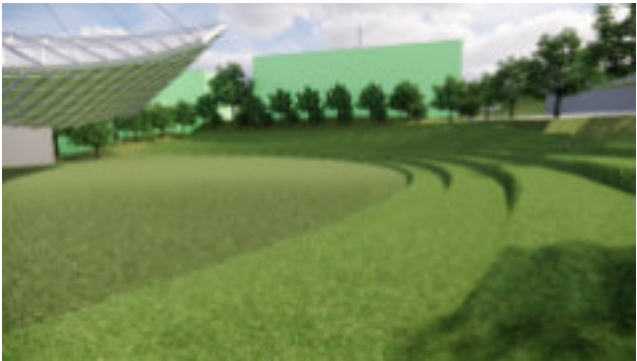




# Green Infrastructure

At the base of the hill, a naturally bowl-shaped portion of the terrain could be modified to become a bioswale that functions as an amphitheater. This would overflow into a small constructed wetland.

Multiple approaches to stormwater absorption must be utilized concurrently to have the best chance of a successful outcome.





# Gateways

One change recommended by the Greater Downtown Area Plan is the creation of gateways. Where possible, barriers should be converted to gateways that act as nodes of activity and communicate something about the area's identity. This neighborhood has the opportunity to redefine itself through gateway creation.

## *Jarboe Street at I-35*

As the sole inter-neighborhood circulator this gateway should act as a gathering place, outdoor art gallery, and generally an icon of neighborhood pride. Artwork on the pavement at the 29th and 28th street intersections could blend into the area under the interstate for a larger statement. The goal is to make both sides of the neighborhood feel ownership of the commercial area at 31st street and Southwest boulevard.

## *29th Street*

In order to encourage circulation between Penn Valley Park and Southwest Blvd, gateways should be created at each end of 29th to relate to the destination at the opposite end. These gateways would be physically close enough to visually relate to each other, so that interplay could be utilized to make the trek seem shorter and more accessible.

## *30th Street*

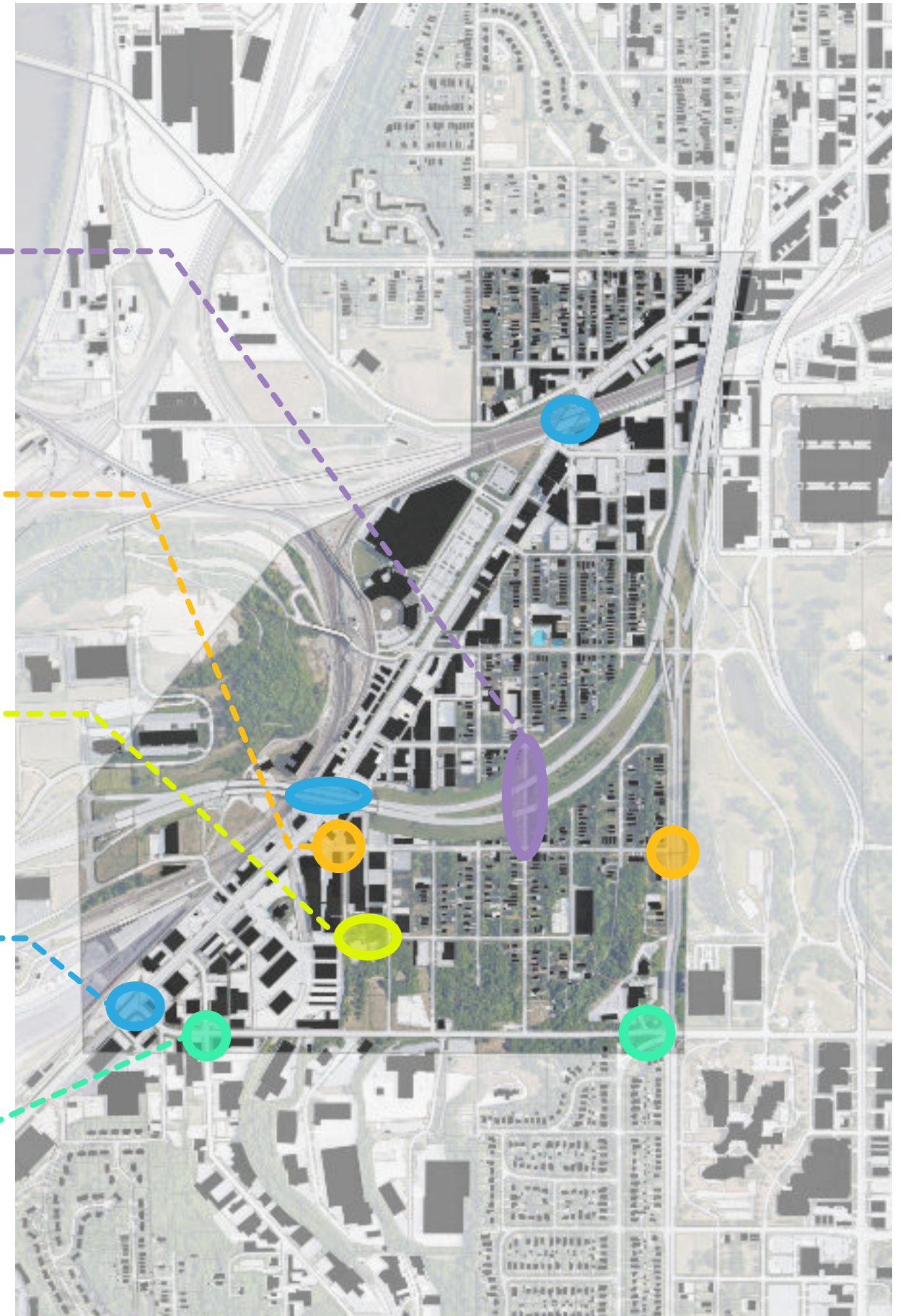
The commercial district is meant to serve the neighborhood's needs, so the community needs an enticing way to access the site. The connection would be made at the west few blocks of 30th street. The scale and character should communicate the transition between the highly active and public commercial area and the more private residential neighborhood area.

## *Southwest Boulevard*

As the gateway to the city and state, the intersection at 31st Street should reflect the character of the Westside development, but it should also speak to the identities of Kansas City and Missouri. The motif could be repeated at the interstate and railroad bridges to the north to create a narrative for those entering the city.

## *31st Street*

Gateways at the base and peak of the hill should relate to the residential neighborhood, the artwork along 31st St, and the trail access point. These gateways could also be designed in a way that contributes to the other traffic calming measures along the hill.





# Economic, Social, and Environmental Justice

Decisions made a century ago are still causing great harm to neighborhood residents. In order to rectify the situation, they need to be able to retain and build wealth, move freely throughout the city, and have access to means of production.

## ***Housing***

Gentrification sometimes happens when older residents are not allowed to age-in-place. If residents could build accessory dwellings to a Universal Design standard, options are opened for multi-generational housing arrangements. If new homes in the neighborhood are built by a community-held entity to a Universal Design standard, residents previously pushed out by gentrification can return to age-in-place in the new housing and contribute to retaining and growing the culture. That path is just one option. Since housing is such a common problem in urban environments, many communities are exploring an array of tools, some of which could be useful in the neighborhood.

## ***Mobility***

This community is hemmed in by all kinds of barriers and is somewhat isolated from the rest of the city. Though the ultimate goal of the project is job creation inside the neighborhood for residents, mobility is needed find employment to build wealth in the meantime. The trail connection to the south along the vacated railroad right-of-way opens up opportunities to the southwest and southeast. Development of mobility along 31st street would break down the city's notorious east-west barrier for thousands of residents throughout the city, this neighborhood included. The mobility hub would open opportunities and connections within the whole metropolitan area, bringing more potential customers to the area.

## ***Food***

If the soil is healed, if innovation grants are leveraged, and if the vacant land is fully utilized, a perpetual community resource can be created. The food grown here would reduce residents' grocery bills while also providing an income source and connections to customers throughout the city. Incubation spaces at the Mercado would grow residents' businesses through every scale, and the Mercado itself can be leveraged to create new opportunities as it grows.

## ***Health***

Low-income communities suffer from adverse health outcomes due to the cost of healthcare and the cost of healthy food. Providing enjoyable recreation spaces like the alleys and trail network would make healthy lifestyles easier. Providing a free source of the healthiest food available that is tailored to neighborhood tastes would make eating healthy the easy and low-cost option.

## ***Education***

The soil regeneration portion of the project can be used to teach chemistry, biology, mycology, physics, and farming. The new homes and accessory dwelling units that would be built in the residential area could also be used to teach several trades. The flexibility of the plan would allow development of future opportunities as the area grows and matures.



# Conclusion

The residents of this community are asking for very little. They want a walkable neighborhood that is their own. They want to be able to live, work, and retire in the neighborhood. They want to be able to maintain the family house and keep it in the family. They want relief from high-pressure predatory buyers. They want to be safe from stormwater damage. The land in their neighborhood is their resource, not a low-risk anything-goes zone for outside developers to play with the latest fads.

Minimal investment is required to empower the neighborhood to protect itself and guide its own destiny. There is underutilized talent and knowledge in the community that just needs a space to grow. The residents will put in the work to improve their neighborhood regardless. In order to respect their time and effort, a thoughtful plan should be in place to guide actions, maximize effects, and set the neighborhood up for success.



# PSP Connections

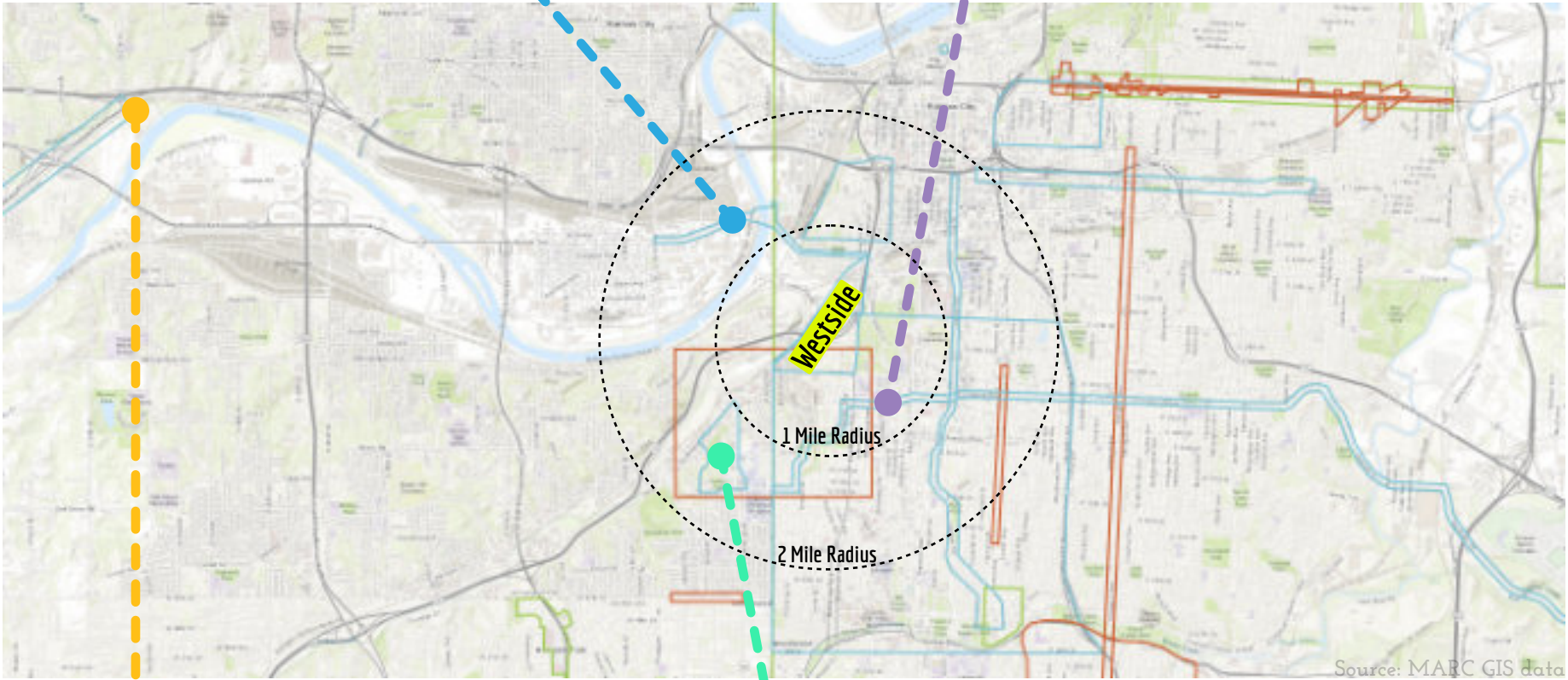
This plan is meant to fit into the larger whole of the other concurrent Planning Sustainable Places projects to take full advantage of future synergies.

## UG Kaw River Bike/Ped Connector Bridge

A connection at Greystone Mountain to the future river trails will allow access to Kansas City, Kansas over the new pedestrian bridge. This will result in mutual benefit for both of the connected communities.

## Linwood Corridor Complete Streets and Bikeway Plan

The expanded network for pedestrians and cyclists would connect into the proposed right-of-way trail at Karnes Boulevard. The Linwood corridor would reach all the way to the Truman Sports Complex, which opens a route to the Rock Island Trail and beyond.



## UG Tri-City Multimodal Redevelopment Plan

This plan seeks to unify and link Wyandotte County's population centers. Expansion of transit options would accompany this change, which could extend to influence the Westside neighborhood. Part of the plan is the conversion of K-32 to a parkway, which would be accessible via the planned pedestrian bridge over the river.

## UG Rosedale University Town District: Fisher Park

The Fisher Park project seeks to take advantage of the growing University of Kansas Hospital and Medical Center by creating a multi-modal hub with mixed-use development along Rainbow Boulevard and 39th Street. This project links to the 31st Street Corridor Plan via an improved and walkable Southwest Boulevard. Since the sites are so close, trail connections would be shared between the two hubs, and transit routes could take advantage of the synergy to maximize available routes.



# Appendix A

## Traffic Study Data



# Traffic Data - Southwest Boulevard

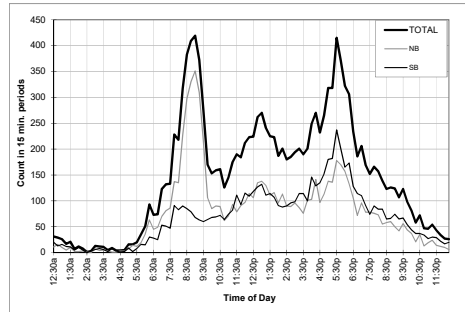
# Traffic Data - Jarboe Street

## Daily Traffic Count

Southwest Boulevard and 31st Street Planning Study  
KCMO

Location: Southwest Boulevard North of 27th

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12:30a	10	16	26	6:30a	70	53	123	12:30p	138	132	270	6:30p	96	110	206
12:45a	5	12	17	6:45a	81	51	132	12:45p	130	111	241	6:45p	78	91	169
1:00a	10	11	21	7:00a	86	47	133	1:00p	111	114	225	7:00p	78	74	152
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1:45a	3	5	8	7:45a	227	90	317	1:45p	113	88	201	7:45p	55	84	139
2:00a	1	0	1	8:00a	297	85	382	2:00p	90	90	180	8:00p	58	65	123
2:15a	0	3	3	8:15a	330	79	409	2:15p	89	96	185	8:15p	60	66	126
2:30a	7	13	20	8:30a	351	68	419	2:30p	96	98	194	8:30p	50	74	124
2:45a	4	8	12	8:45a	309	63	372	2:45p	87	114	201	8:45p	42	65	107
3:00a	5	6	11	9:00a	214	50	274	3:00p	76	114	190	9:00p	55	67	123
3:15a	3	5	8	9:15a	106	64	170	3:15p	101	100	201	9:15p	44	54	98
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5:30a	38	15	51	11:30a	97	115	212	5:30p	157	165	322	11:30p	10	17	27
5:45a	63	30	93	11:45a	114	109	223	5:45p	133	173	306	11:45p	6	20	26



Period	NB	SB	TOTAL
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11:00a	381	428	809
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2:00p	362	398	760
3:00p	421	489	910
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5:00p	638	776	1,414
6:00p	352	443	795
7:00p	282	332	614
8:00p	210	270	480
9:00p	158	202	360
10:00p	91	128	219
11:00p	42	86	130

Approach	Count Date	8:00a - 9:00a	12:15p - 1:15p	4:45p - 5:45p	Totals
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Southbound	8/27/19 Tue	295	484	785	6,618
TOTAL	8/27/19 Tue	1,582	998	1,426	14,149

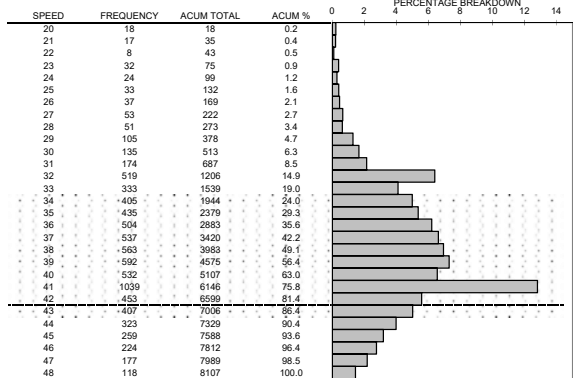
TransSystems Corporation  
2400 Pershing Road, Suite 400, Kansas City, Missouri 64108 (816) 329-8600

## SPOT SPEED STUDY RESULTS RELATIVE FREQUENCY DISTRIBUTION

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OBSERVER: ARM  
DATE: 8/27/2019 - 8/29/2019

COUNTY: Jackson  
SPEED LIMIT: 35  
DIRECTION: NB + SB

LOCATION: Southwest Blvd North of 27th  
TIME START: 9:00 AM  
TIME END: 3:00 PM



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50th PERCENTILE = 38.1  
80th PERCENTILE = 42.7  
90th PERCENTILE = 43.9  
95th PERCENTILE = 45.5

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% BELOW PACE = 19  
% ABOVE PACE = 13.6

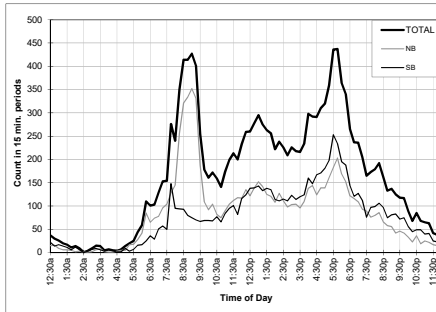
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## Daily Traffic Count

Southwest Boulevard and 31st Street Planning Study  
KCMO

Location: Southwest Boulevard North of Genessee

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10:00a	351	322	673
11:00a	482	423	905
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2:00p	416	463	879
3:00p	488	552	1,040
4:00p	563	717	1,280
5:00p	707	870	1,577
6:00p	440	504	944
7:00p	331	378	709
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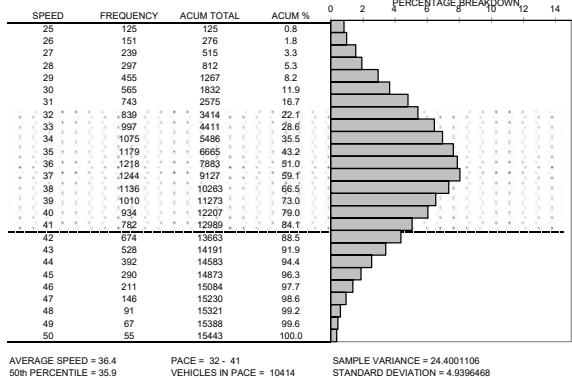
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CITY: Kansas City  
OBSERVER: EHM  
DATE: 8/27/2019 - 8/29/2019

COUNTY: Jackson  
SPEED LIMIT: 35 MPH  
DIRECTION: NB + SB

LOCATION: Southwest Blvd North of Genessee  
TIME START: 9:00 AM  
TIME END: 3:00 PM



AVERAGE SPEED = 36.4  
50th PERCENTILE = 35.9  
80th PERCENTILE = 41.2  
90th PERCENTILE = 42.4  
95th PERCENTILE = 44.3

PACE = 32 - 41  
VEHICLES IN PACE = 10414  
% IN PACE = 67.4  
% BELOW PACE = 16.7  
% ABOVE PACE = 15.9

SAMPLE VARIANCE = 24.4001106  
STANDARD DEVIATION = 4.9396468  
RANGE 1'S = 72.24632  
RANGE 2'S = 95.8881  
RANGE 3'S = 100

## Daily Traffic Count

Southwest Boulevard and 31st Street Planning Study  
KCMO

Location: Jarboe St South of 29th Street

Period	NB	SB	TOTAL	Period	NB	SB	TOTAL	Period	NB	SB	TOTAL	Period	NB	SB	TOTAL
12:00a	2	0	2	6:00a	8	7	15	12:00p	3	3	6	6:00p	3	2	5
12:15a	3	0	3	6:15a	5	2	7	12:15p	5	3	8	6:15p	4	7	11
12:30a	0	0	0	6:30a	3	3	6	12:30p	3	3	6	6:30p	3	4	7
12:45a	0	3	3	6:45a	4	1	5	12:45p	8	3	11	6:45p	3	4	7
1:00a	0	0	0	7:00a	5	3	8	1:00p	6	6	12	7:00p	6	8	14
1:15a	0	0	0	7:15a	7	5	12	1:15p	3	1	4	7:15p	3	5	8
1:30a	0	0	0	7:30a	9	3	12	1:30p	2	5	7	7:30p	1	0	1
1:45a	0	0	0	7:45a	10	3	13	1:45p	8	4	12	7:45p	2	1	3
2:00a	1	1	2	8:00a	8	4	12	2:00p	1	4	5	8:00a	4	4	8
2:15a	0	0	0	8:15a	8	1	9	2:15p	9	2	11	8:15p	3	1	4
2:30a	0	0	0	8:30a	9	2	11	2:30p	10	3	13	8:30p	4	1	5
2:45a	0	1	1	8:45a	5	2	7	2:45p	4	3	7	8:45p	2	3	5
3:00a	0	0	0	9:00a	10	1	11	3:00p	5	4	9	9:00p	2	3	5
3:15a	0	0	0	9:15a	7	3	10	3:15p	7	6	13	9:15p	2	1	3
3:30a	0	1	1	9:30a	10	1	11	3:30p	10	6	16	9:30p	2	0	2
3:45a	0	0	0	9:45a	4	3	7	3:45p	4	2	6	9:45p	2	1	3
4:00a	0	0	0	10:00a	10	0	10	4:00p	10	12	22	10:00p	1	0	1
4:15a	0	1	1	10:15a	1	1	2	4:15p	5	2	7	10:15p	1	0	1
4:30a	0	0	0	10:30a	4	2	6	4:30p	7	6	13	10:30p	1	2	3
4:45a	0	0	0	10:45a	0	0	0	4:45p	8	10	18	10:45p	0	0	0
5:00a	0	0	0	11:00a	2	3	5	5:00p	8	7	15	11:00p	2	1	3
5:15a	1	1	2	11:15a	4	1	5	5:15p	6	10	16	11:15p	0	0	0
5:30a	1	5	6	11:30a	5	5	10	5:30p	8	10	18	11:30p	0	2	2
5:45a	5	5	10	11:45a	5	5	10	5:45p	8	7	15	11:45p	1	0	1

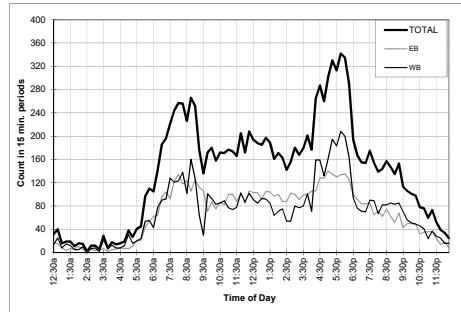


# Traffic Data - 31<sup>st</sup> Street

## Daily Traffic Count Southwest Boulevard and 31st Street Planning Study KCMO

Location: **31st St East of Jarboe**

Period	Start	EB	WB	TOTAL	Period	Start	EB	WB	TOTAL	Period	Start	EB	WB	TOTAL	Period	Start	EB	WB	TOTAL
12:00a	12	15	25	40	6:15a	64	78	142	12:30p	103	85	188	6:15p	91	76	167			
12:15a	15	25	40	6:30a	96	90	186	12:45p	92	93	185	6:30p	84	71	155				
12:30a	8	8	16	6:45a	104	92	196	1:00p	105	92	197	6:45p	84	70	154				
1:00a	7	12	19	7:00a	93	128	221	1:00p	104	85	189	7:00p	85	90	175				
1:15a	6	5	11	7:15a	123	121	244	1:15p	97	64	161	7:15p	65	89	154				
1:30a	11	5	16	7:30a	134	123	257	1:30p	100	71	171	7:30p	72	67	139				
1:45a	5	10	15	7:45a	118	138	256	2:00p	88	75	163	7:45p	62	82	144				
2:00a	2	0	2	8:00a	124	102	226	2:00p	88	54	142	8:00p	75	82	157				
2:15a	5	7	12	8:15a	106	160	266	2:15p	102	54	156	8:15p	62	85	147				
2:30a	4	8	12	8:30a	125	127	252	2:30p	91	77	168	8:30p	68	85	153				
2:45a	4	2	6	8:45a	112	64	176	2:45p	99	80	179	8:45p	60	62	122				
3:00a	7	22	29	9:00a	106	30	136	3:00p	99	80	179	9:00p	43	70	113				
3:15a	2	8	10	9:15a	71	101	172	3:15p	84	110	194	9:15p	42	40	82				
3:30a	5	13	18	9:30a	87	93	180	3:30p	106	135	241	9:30p	33	41	74				
3:45a	6	8	14	9:45a	75	83	158	3:45p	126	126	252	9:45p	38	41	79				
4:00a	5	8	13	10:00a	87	85	172	4:00p	125	158	283	10:00p	15	36	51				
4:15a	7	12	19	10:15a	82	89	171	4:15p	115	160	275	10:15p	25	31	56				
4:30a	7	31	38	10:30a	100	77	177	4:30p	104	148	252	10:30p	10	20	30				
4:45a	11	16	27	10:45a	100	74	174	4:45p	133	193	326	10:45p	14	17	31				
5:00a	21	20	41	11:00a	88	76	164	5:00p	134	195	329	11:00p	24	28	52				
5:15a	21	24	45	11:15a	103	102	205	5:15p	140	208	348	11:15p	14	25	39				
5:30a	43	54	97	11:30a	85	87	172	5:30p	118	157	275	11:30p	10	7	17				
5:45a	55	55	110	11:45a	106	102	208	5:45p	126	164	290	11:45p	9	16	25				



Approach	Count Date	7:30a - 8:30a	11:15a - 12:15p	4:45p - 5:45p	Totals
Eastbound	8/27/19 Tue	482	367	654	6,567
Westbound	8/27/19 Tue	523	382	786	6,815
TOTAL	8/27/19 Tue	1,005	749	1,320	13,382

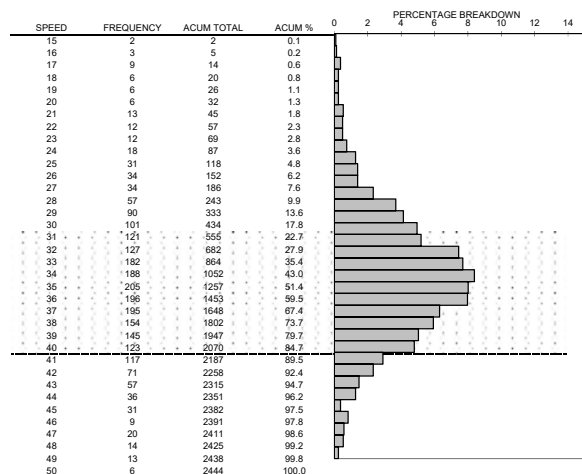
TransSystems Corporation  
2400 Pershing Road, Suite 400, Kansas City, Missouri 64108 (816) 329-8600

## SPOT SPEED STUDY RESULTS RELATIVE FREQUENCY DISTRIBUTION

CITY: Kansas City  
OBSERVER: ARM  
DATE: 8/27/19 - 8/29/19

COUNTY: Jackson  
DIRECTION: EB + WB

LOCATION: 31st St East of Jarboe St  
TIME START: 12:00 AM  
TIME END: 11:59 PM



AVERAGE SPEED = 35.1  
50th PERCENTILE = 34.8  
85th PERCENTILE = 40.1  
90th PERCENTILE = 41.2  
95th PERCENTILE = 43.2

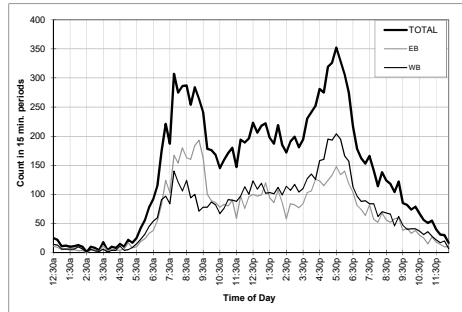
PACE = 31 - 40  
VEHICLES IN PACE = 1636  
% IN PACE = 66.9  
% BELOW PACE = 17.8  
% ABOVE PACE = 15.3

SAMPLE VARIANCE = 30.2002306  
STANDARD DEVIATION = 5.4954736  
RANGE 1'S = 71.07201  
RANGE 2'S = 95.00818  
RANGE 3'S = 99.18167

## Daily Traffic Count Southwest Boulevard and 31st Street Planning Study KCMO

Location: **31st St. West of Fairmount**

Period	Start	EB	WB	TOTAL	Period	Start	EB	WB	TOTAL	Period	Start	EB	WB	TOTAL	Period	Start	EB	WB	TOTAL
12:00a	11	14	25	6:00a	35	44	82	12:30p	100	123	223	6:00p	104	113	217				
12:15a	9	13	22	6:15a	55	60	115	12:45p	97	109	206	6:15p	81	97	178				
12:30a	5	6	11	6:30a	83	91	174	1:00p	99	119	218	6:30p	74	86	160				
12:45a	6	6	12	6:45a	124	97	221	1:15p	120	102	222	6:45p	64	89	153				
1:00a	4	5	10	7:00a	103	84	187	1:30p	84	103	187	7:00p	82	84	166				
1:15a	5	6	11	7:15a	167	140	307	1:45p	86	101	187	7:15p	57	84	141				
1:30a	3	10	13	7:30a	154	121	275	2:00p	107	112	219	7:30p	52	62	114				
1:45a	4	6	10	7:45a	180	106	286	2:15p	82	117	199	7:45p	68	70	138				
2:00a	0	1	1	8:00a	163	124	287	2:30p	58	114	172	8:00p	56	68	124				
2:15a	4	8	10	8:15a	160	94	254	2:45p	84	107	191	8:15p	52	66	118				
2:30a	5	3	8	8:30a	164	100	264	3:00p	106	135	241	8:30p	58	46	104				
2:45a	2	2	4	8:45a	193	71	264	3:15p	77	104	181	8:45p	60	62	122				
3:00a	12	6	18	9:00a	163	78	241	3:30p	126	126	252	9:00p	38	47	85				
3:15a	3	1	4	9:15a	100	78	178	3:45p	106	135	241	9:15p	42	40	82				
3:30a	6	4	10	9:30a	89	87	176	4:00p	125	158	283	9:30p	33	41	74				
3:45a	4	4	8	9:45a	86	82	168	4:15p	115	160	275	9:45p	38	41	79				
4:00a	4	11	15	10:00a	76	87	163	4:30p	104	148	252	10:00p	15	36	51				
4:15a	6	4	10	10:15a	83	76	159	4:45p	133	193	326	10:15p	25	31	56				
4:30a	17	5	22	10:30a	80	91	171	5:00p	148	204	352	10:30p	10	20	30				
4:45a	8	9	17	10:45a	90	80	180	5:15p	134	195	329	10:45p	14	17	31				
5:00a	10	10	20	11:00a	99	88	187	5:30p	140	166	306	10:55p	10	7	17				
5:15a	19	23	42	11:15a	97	97	194	5:45p	118	157	275	11:15a	14	17	31				
5:30a	24	32	56	11:30a	76	113	189					11:30a	20	20	40				
5:45a	33	45	78	11:45a	96	100	196					11:45a	17	17	34				



Approach	Count Date	7:15a - 8:15a	12:00p - 1:00p	4:30p - 5:30p	Totals
Eastbound	8/27/19 Tue	664	416	539	6,567
Westbound	8/27/19 Tue	491	453	787	6,959
TOTAL	8/27/19 Tue	1,155	869	1,326	13,516

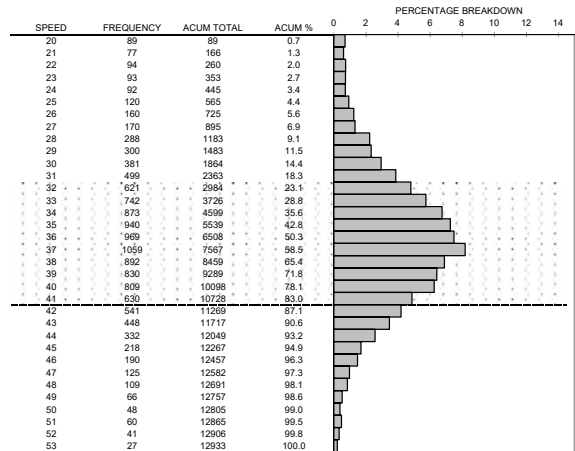
TransSystems Corporation  
2400 Pershing Road, Suite 400, Kansas City, Missouri 64108 (816) 329-8600

## SPOT SPEED STUDY RESULTS RELATIVE FREQUENCY DISTRIBUTION

CITY: Kansas City  
OBSERVER: EHM  
DATE: 8/27/19 - 8/29/2020

COUNTY: Jackson  
DIRECTION: EB + WB

LOCATION: 31st West of Fairmount  
TIME START: 9:00 AM  
TIME END: 3:00 PM



AVERAGE SPEED = 36.3  
50th PERCENTILE = 36  
85th PERCENTILE = 41.5  
90th PERCENTILE = 42.8  
95th PERCENTILE = 45.1

PACE = 32 - 41  
VEHICLES IN PACE = 8365  
% IN PACE = 64.7  
% BELOW PACE = 18.3  
% ABOVE PACE = 17

SAMPLE VARIANCE = 33.595346  
STANDARD DEVIATION = 5.7961655  
RANGE 1'S = 75.6669  
RANGE 2'S = 93.8452  
RANGE 3'S = 100

# Traffic Data - 27th Street

## Daily Traffic Count Southwest Boulevard and 31st Street Planning Study KCMO

Location: **27th St East of Belleview**

Period	Start	EB	WB	TOTAL	Period	Start	EB	WB	TOTAL	Period	Start	EB	WB	TOTAL	Period	Start	EB	WB	TOTAL
12:00a	5	4	9	6:00a	14	19	33	12:30p	24	14	38	6:00p	22	11	33	12:00a	5	4	9
12:15a	4	3	7	6:15a	10	17	27	12:45p	22	21	43	6:15p	18	8	26	12:15a	4	3	7
12:30a	1	0	1	6:30a	13	11	24	1:00p	11	12	23	6:30p	27	11	38	12:30a	1	0	1
12:45a	0	2	2	6:45a	4	8	12	1:15p	11	12	23	6:45p	11	14	25	12:45a	0	2	2
1:00a	1	2	3	7:00a	18	17	35	1:30p	18	10	28	7:00p	25	9	34	1:00a	1	2	3
1:15a	1	0	1	7:15a	31	21	52	1:45p	20	10	30	7:15p	13	10	23	1:15a	1	0	1
1:30a	0	0	0	7:30a	18	27	45	2:00p	17	17	34	7:30p	12	6	18	1:30a	0	0	0
1:45a	1	1	2	7:45a	23	35	58	2:15p	24	15	39	7:45p	7	11	18	1:45a	1	1	2
2:00a	0	0	0	8:00a	32	39	71	2:30p	15	13	28	8:00p	15	5	20	2:00a	0	0	0
2:15a	0	0	0	8:15a	22	14	36	2:45p	21	15	36	8:15p	6	6	12	2:15a	0	0	0
2:30a	5	0	5	8:30a	19	12	31	3:00p	23	11	34	8:30p	7	11	18	2:30a	5	0	5
2:45a	1	0	1	8:45a	38	17	55	3:15p	37	14	51	8:45p	7	5	12	2:45a	1	0	1
3:00a	2	1	3	9:00a	30	11	41	3:30p	15	20	35	9:00p	6	5	11	3:00a	2	1	3
3:15a	1	0	1	9:15a	20	13	33	3:45p	44	20	64	9:15p	11	5	16	3:15a	1	0	1
3:30a	0	1	1	9:30a	21	15	36	4:00p	40	10	50	9:30p	8	6	14	3:30a	0	1	1
3:45a	0	0	0	9:45a	18	13	31	4:15p	29	19	48	9:45p	12	5	17	3:45a	0	0	0
4:00a	0	0	0	10:00a	18	11	29	4:30p	51	11	62	10:00p	14	3	17	4:00a	0	0	0
4:15a	6	1	7	10:15a	18	12	30	4:45p	25	19	44	10:15p	7	2	9	4:15a	6	1	7
4:30a	6	3	9	10:30a	20	12	32	5:00p	45	20	65	10:30p	8	6	14	4:30a	6	3	9
4:45a	3	3	6	10:45a	14	11	25	5:15p	30	18	48	10:45p	4	2	6	4:45a	3	3	6
5:00a	3	5	8	11:00a	14	8	22	5:30p	21	14	35	11:00p	6	2	8	5:00a	3	5	8
5:15a	1	2	3	11:15a	14	12	26	5:45p	26	15	41	11:15p	2	1	3	5:15a	1	2	3
5:30a	2	11	13	11:30a	15	12	27					11:30p	4	2	6	5:30a	2	11	13
5:45a	7	10	17	11:45a	20	14	34	5:45p	26	15	41	11:45p	3	2	5	5:45a	7	10	17



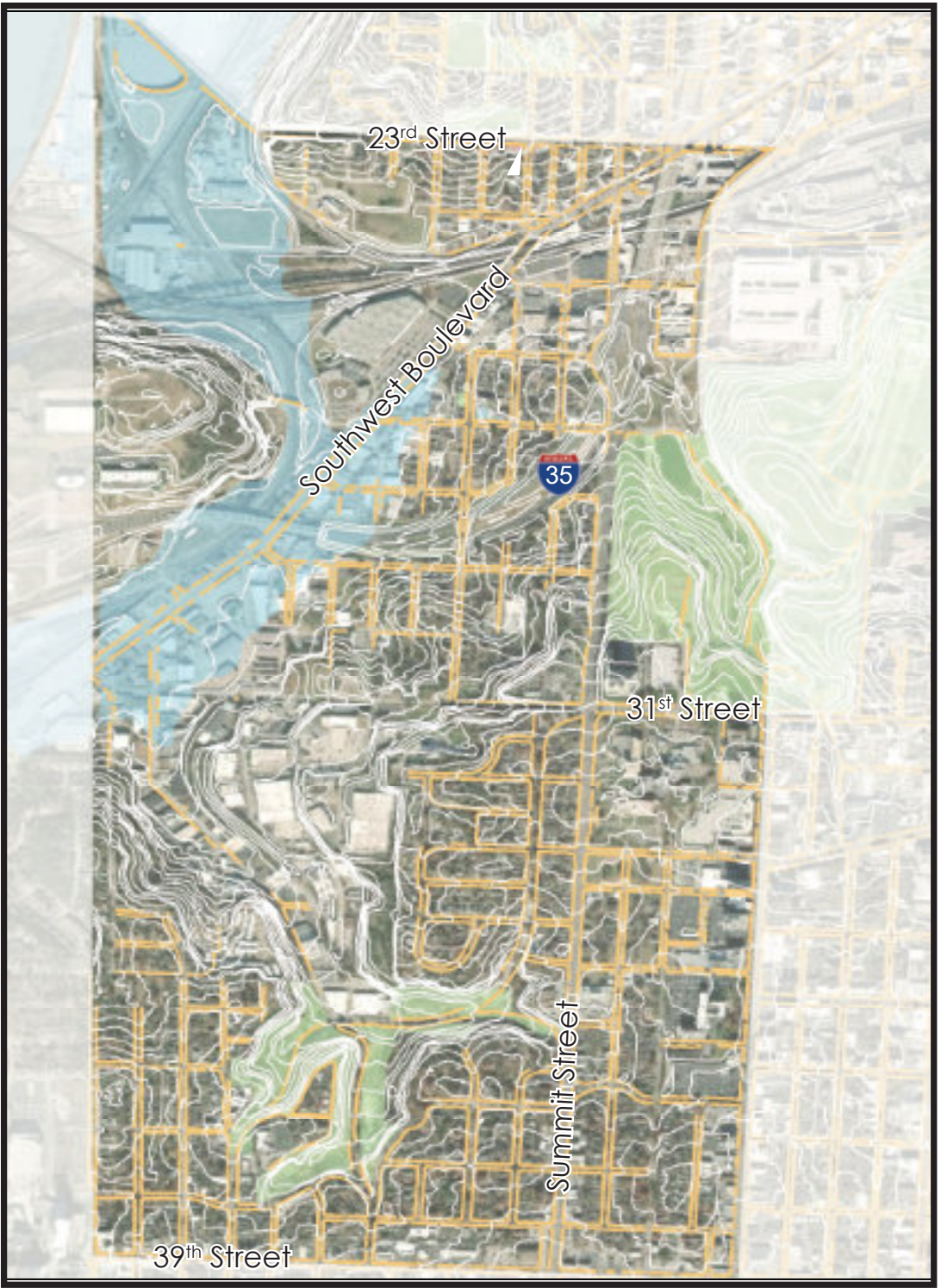
# Access Points

31<sup>st</sup> Street Study Area



# Sidewalk Network

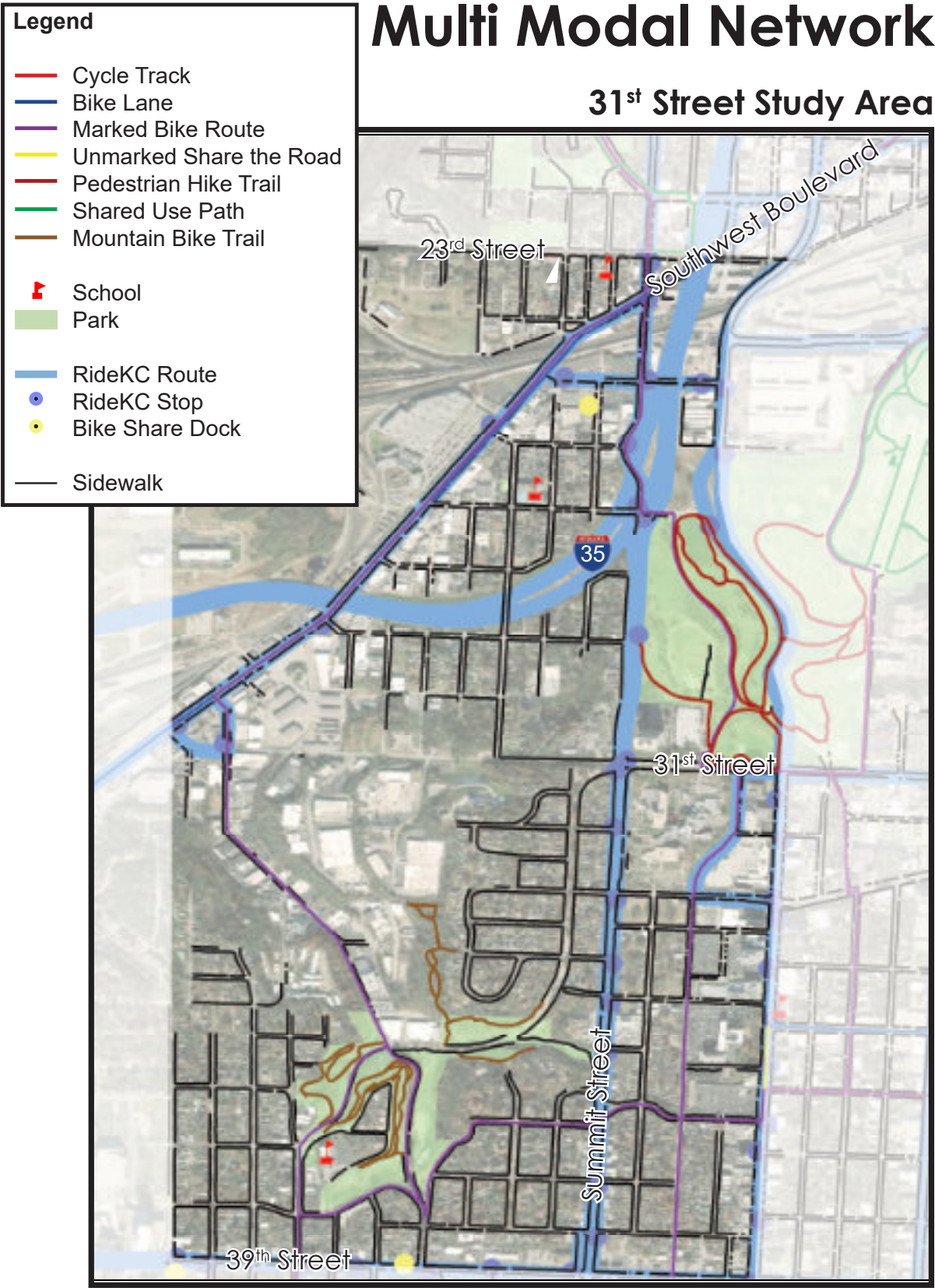
31<sup>st</sup> Street Study Area





# Multi Modal Network

## 31<sup>st</sup> Street Study Area

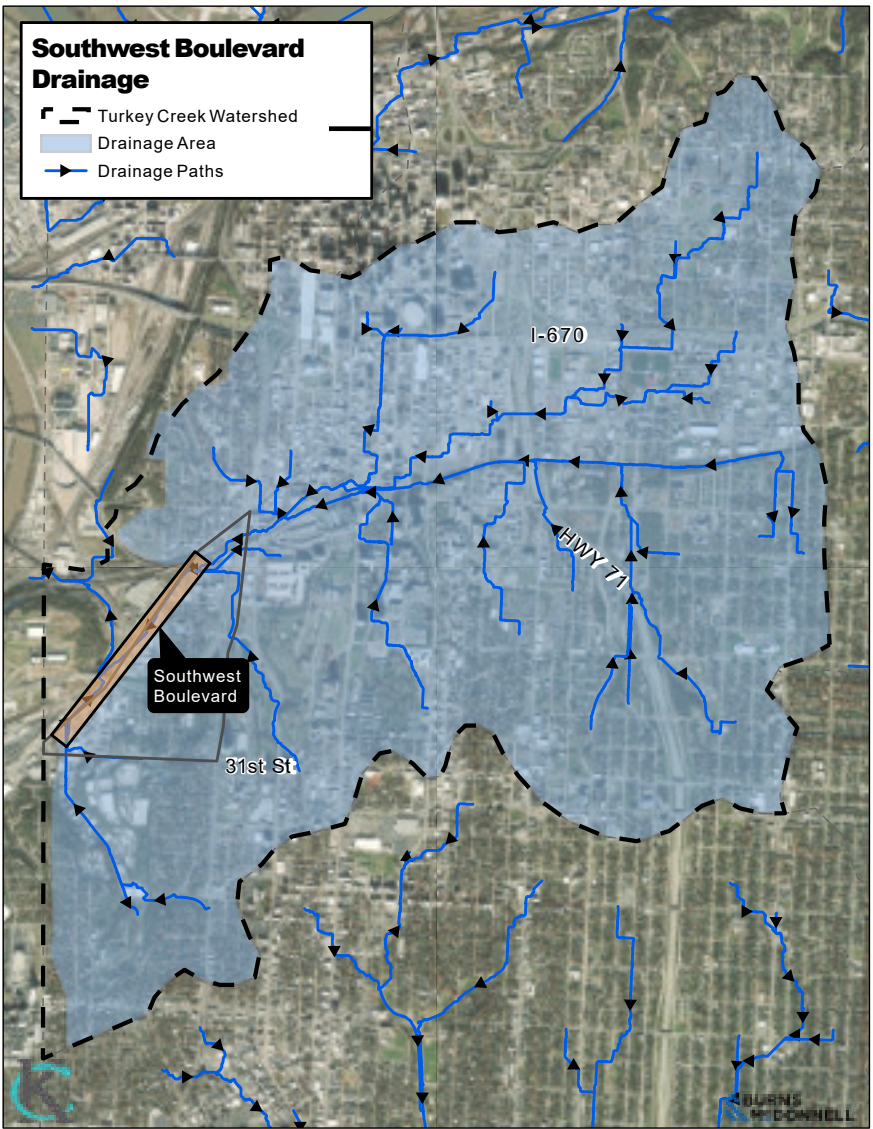




# 31st Street Corridor Study

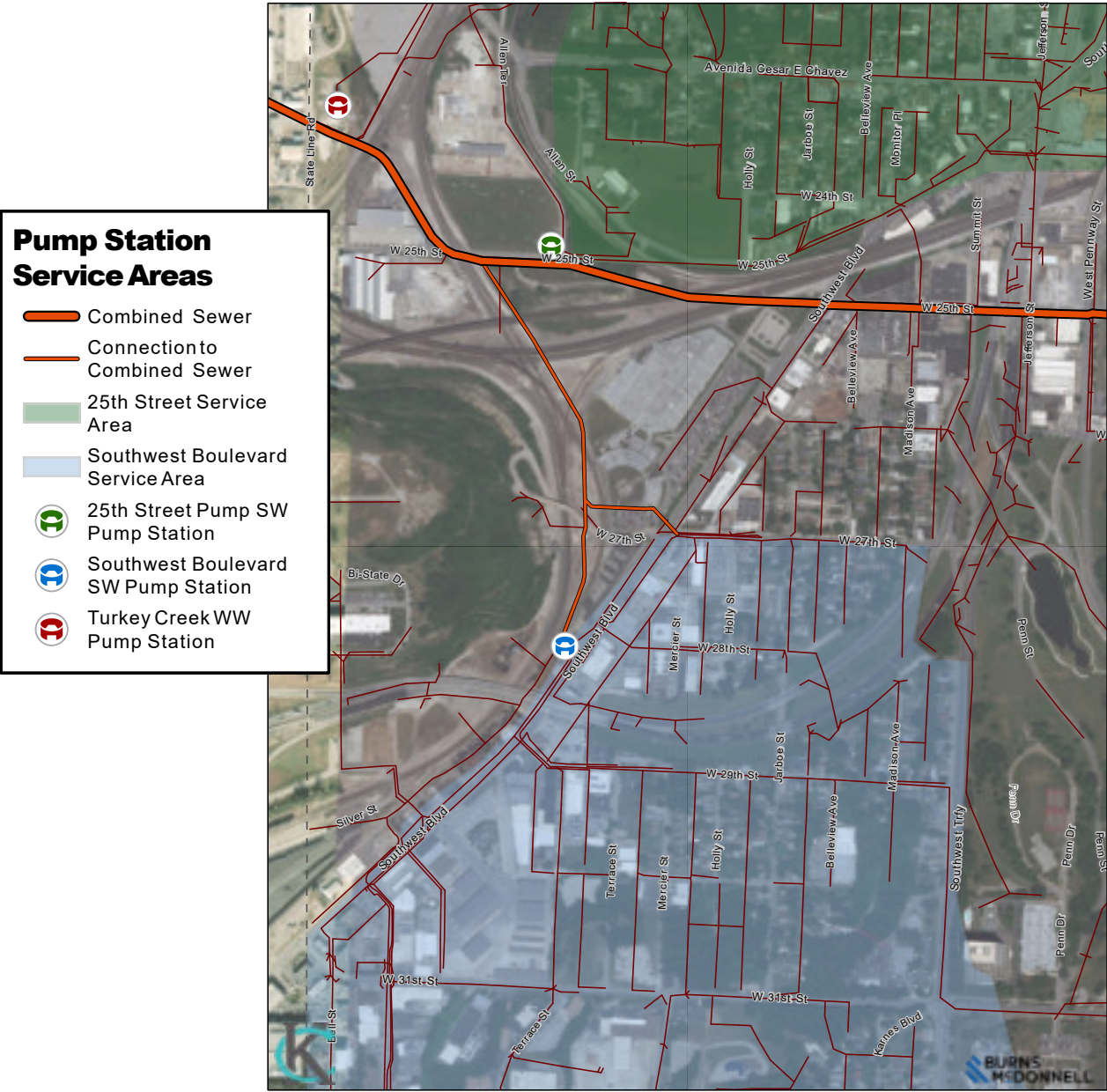
## Understanding Stormwater

Stormwater can travel via curbs and gutters along streets, or through properties - regardless of what is built there. Drainage paths depict how stormwater travels overland to the furthest downhill point, until it reaches a waterway. The *Southwest Boulevard Drainage Map* shows how stormwater is getting to the Westside South Neighborhood, bringing approximately 4,300 acres of drainage with it. To address urban stormwater issues in the neighborhood, stormwater must be slowed-down and captured at the upstream source. While there are opportunities for green stormwater infrastructure to capture some of this drainage along Southwest Boulevard, this will not be enough to alleviate flooding issues. Rather, planning and funding should be focused on the upstream opportunities.



## Where Stormwater Goes

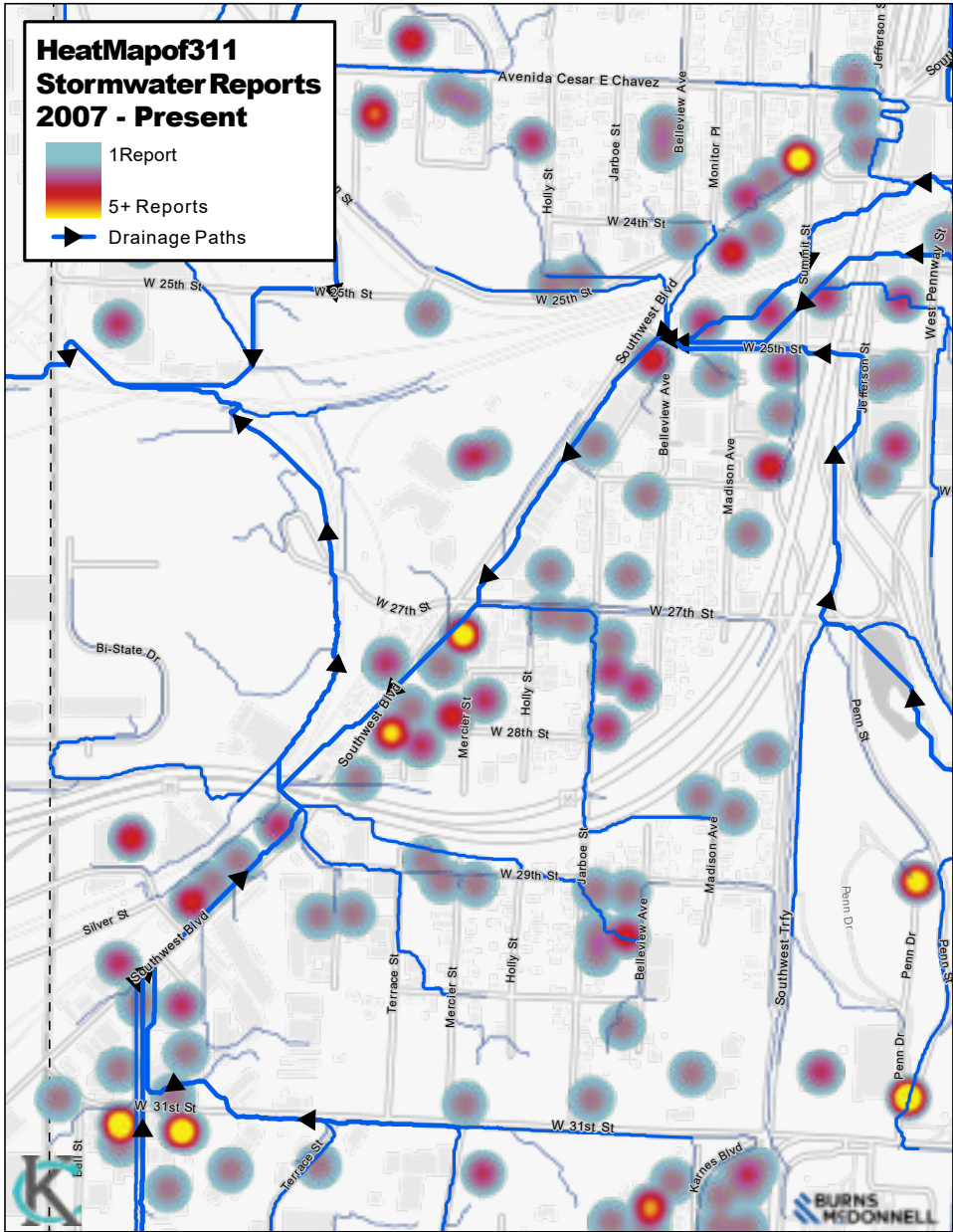
Majority of the stormwater and wastewater that enters the underground system in the Turkey Creek Watershed travels down a double box combined sewer that is approximately 17'x15' each to reach the Turkey Creek Pump Station. This pump station has recently been upgraded to 30 MGD, but cannot operate at its full capacity until the Westside Wastewater Treatment Plant is upgraded. During heavy rain events when the combined sewer is at capacity, the water that cannot be pumped to the treatment plant overflows into the Missouri River to prevent backup into the city. The areas north of 25th Street and south of 27th Street have an additional layer of protection from backups, with stormwater pump stations that move water when the river is high.





Stormwater Issues

Taking a closer look at the study area, we can begin to see a pattern of stormwater issues occurring along drainage paths. As seen in the *Heat Map of 311 Stormwater Reports*, more reports are located where the drainage paths are accumulating at the downstream ends on Southwest Boulevard and on 31st Street. Majority of the 311 citizen reports say there are blockages preventing stormwater from entering the inlets, but the same locations are reported time after time, even after the inlets have just been cleaned. This suggests that the root cause of the drainage backup is the system capacity and the large amounts of drainage coming from upstream. This is where green stormwater infrastructure can help relieve the system, by giving stormwater somewhere else to go.



Stormwater Solutions

Drainage paths not only inform us on where the issues are, but also where solutions make the most sense. For green stormwater infrastructure to function well and make a difference, the water has to get there first. Streets that double as drainage paths are prime candidates for green street solutions such as stormwater tree planters or bioretention bumpouts. These technologies can also address transportation concerns by slowing down traffic.

Another place stormwater can go is onto vacant parcels that are along drainage paths. The larger amount of area available, the more stormwater can be managed. Taking this approach also gives a new use to vacant parcels, which in turn helps improve the neighborhood. The *Green Stormwater Infrastructure Opportunities* Map shows potential locations to capture drainage both on- and off-street, before it reaches Southwest Boulevard.

